

# Field Operations Manual

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# Field Operations Manual

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**Foreword**

The Virginia Department of Health Office of Drinking Water (ODW) has historically provided guidance to staff and the regulated community on how to implement requirements in the *Waterworks Regulations* through subject-specific working memos. Over time, the number of working memos has become difficult to manage and keep updated. This *Field Operations Manual* voids Working Memos 259, 276, 327, 547, 574, 657, 680, 704, 740, 743, 769, 782, 801, 802, 810, 817, 834, 835, 841, 842, 844, 850, 851, 859, 884, 886, 894, 897, 900, 902, 906, 908, 914, 915, and 918.

Throughout this manual, attachments are identified by the chapter to which they are referenced; e.g., “FM-C14-T4.Attachment 1” refers to Attachment 1 identified in Table 4 in Chapter 14 of the *Field Operations Manual* (FM). All attachments are located in a separate document entitled **FM Compendium of Appendices**.

**Disclaimer**

This manual provides consolidated guidance on compliance oversight of the *Waterworks Regulations*, but does not replace requirements of the *Waterworks Regulations*.

**Revisions Summary**

Date	Description of Changes
November 16, 2022 (Version 1.0)	Original Issuance

## **List of Abbreviations**

AL	Action Level
ANSI	American National Standards Institute
AWOP	Area-Wide Optimization Program
AWWA	American Water Works Association
BAT	Best Available Technology
BSSP	Bacteriological Sample Siting Plan
BWA	Boil Water Advisory
BWN	Boil Water Notice
CAP	Corrective Action Plan
CCP	Composite Correction Program
CCR	Consumer Confidence Report
CDC	Centers for Disease Control and Prevention
CEC	Contaminants of Emerging Concern
CFE	Combined Filter Effluent
CIP	Capital Improvement Program
CMDP	Compliance Monitoring Data Portal
CROMERR	Cross-Media Electronic Reporting Rule
CT	Concentration Dose x Contact Time
CWS	Community Waterworks
D/DBPRs	Disinfectants/Disinfection Byproducts Rules (Stages 1 & 2)
DBPs	Disinfection Byproducts
DEQ	Department of Environmental Quality
DCLS	Division of Consolidated Laboratory Services
DO	Designated Operator
DOLI	Department of Labor and Industry
DPOR	Department of Professional and Occupational Regulation
DSI	Division of Surveillance and Investigations
DSO	Distribution System Optimization
DTS	Division of Technical Services
DWW	Drinking Water Watch
EC+	<i>E. coli</i> -positive result
EDCs	Endocrine-Disrupting Chemicals
EPA	U.S. Environmental Protection Agency
ESWTR	Enhanced Surface Water Treatment Rule
ETT	Enforcement Tracking Tool
FIFRA	Federal Insecticide, Fungicide and Rodenticide Act
FOIA	Freedom of Information Act
GEC	Global Environmental Consulting
GUDI	Groundwater under the Direct Influence of Surface Water
GW	Groundwater
GWR	Ground Water Rule
HA	Health Advisory
HAA5	Haloacetic Acids (Five)
HABs	Harmful Algal Blooms
HHBP	Human Health Benchmarks for Pesticides

HPC	Heterotrophic Plate Count
IESWTR	Interim Enhanced Surface Water Treatment Rule
IFE	Individual Filter Effluent
LCR	Lead and Copper Rule
LIMS	Laboratory Information Management System
LT1ESWTR	Long-Term 1 (LT1) Enhanced Surface Water Treatment Rule
LT2ESWTR	Long-Term 2 (LT2) Enhanced Surface Water Treatment Rule
M&R	Monitoring & Reporting
MCL	Maximum Contaminant Level
MCLG	Maximum Contaminant Level Goal
MOR	Monthly Operation Report
MPN	Most Probable Number
MRDL	Maximum Residual Disinfectant Level
MRDLG	Maximum Residual Disinfectant Level Goal
MTBE	Methyl <i>tert</i> -Butyl Ether
NOAV	Notice of Alleged Violation
NPDWRs	National Primary Drinking Water Regulations
NSF	National Sanitation Foundation
NTNC	Nontransient Noncommunity
NTU	Nephelometric Turbidity Unit
OCCT	Optimal Corrosion Control Treatment
ODW	Office of Drinking Water
OEpi	VDH-Office of Epidemiology
OLC	VDH-Office of Licensure and Certification
OPGS	VDH-Office of Procurement and General Services
OSHA	Occupational Safety and Health Administration
P/A	Presence/Absence
PDF	Portable Document File
PFAS	Per- and Polyfluoroalkyl Substances
PFOA	Perfluorooctanoic Acid
PFOS	Perfluorooctane Sulfonate
PMCL	Primary Maximum Contaminant Level
PN	Public Notice
PNR	Public Notification Rule
PPE	Personal Protective Equipment
PWS	Public Water System
PWSS	Public Water System Supervision
R&R	Reports & Retrieval (access database)
RFG	Reformulated Gasoline
RPZ	Reduced Pressure Zone
RTCR	Revised Total Coliform Rule
SCADA	Supervisory Control and Data Acquisition
SDWA	Safe Drinking Water Act
SDWIS	Safe Drinking Water Information System
SDWIS-Federal	Safe Drinking Water Information System (Federal Version)
SDWIS-State	Safe Drinking Water Information System (State Version)



SMCL	Secondary Maximum Contaminant Level
SNSV	Sanitary Survey
SW	Surface Water
SWEPT	Safe Water Engineering Project Tracker
SWIFT	Safe Water Information Field Tool
SWIMR	Safe Water Information Management Reporting
SWT	Source Water Treatment
SWTP	Surface Water Treatment Plant
SWTR	Surface Water Treatment Rule
TC+	Total Coliform-positive result
TMF	Technical, Managerial, and Financial capabilities
TNC	Transient Noncommunity
TOC	Total Organic Carbon
TT	Treatment Technique
TTHMs	Total Trihalomethanes
UCMR	Unregulated Contaminant Monitoring Rule
URL	Uniform Resource Locator
UV	Ultraviolet Light
VAC	Virginia Administrative Code
VDACS	Virginia Department of Agriculture and Consumer Services
VDEM	Virginia Department of Emergency Management
VDH	Virginia Department of Health
VDH-ODW	Virginia Department of Health-Office of Drinking Water
VHA	Veterans Health Administration
VOCs	Volatile Organic Chemicals
VOP	Virginia's Optimization Program
VPDES	Virginia Pollutant Discharge Elimination System
WBOP	Waterworks Business Operations Plan
WRF	Water Research Foundation
WTP	Water Treatment Plant

## **Glossary of Terms**

24-Hour Consultation	Waterworks with certain violations involving exceedance of turbidity limits must consult with ODW field staff within 24 hours after learning of the violation. If consultation does not occur, then the violation is elevated to Tier 1. The owner has 24 hours from the time the violation is elevated to issue the notice.
4-Log Inactivation of Viruses	Disinfection with sufficient CT applied to groundwater source(s) to accomplish 99.99% inactivation of viruses.
Area-Wide Optimization Program	Voluntary multi-state effort to optimize waterworks treatment processes and distribution systems to enhance public health protection without incurring capital expenses.
Asset Management	The actions of a waterworks to manage assets, such as physical facilities, personnel, etc., to derive optimum economic performance and profitability, and consumer confidence.
Boil Water Advisory	A Boil Water Advisory (BWA) is a public statement advising customers to boil tap water before consuming it. It is issued when an event has occurred allowing the possibility for the water distribution system to become contaminated. An advisory does not mean that the water is contaminated, but rather that it could be contaminated; because the water quality is unknown, customers should assume the water is unsafe to drink and take the appropriate precautions.
Boil Water Notice	A Boil Water Notice (BWN) is issued when contamination is confirmed in the water system. During the duration of this notice, all customers must boil their water before consuming it or use bottled water.
Capital Improvement Program (CIP)	A short- or long-range plan to identify capital projects and equipment purchases that includes a schedule of planned construction and planned financing.
Clean Compliance History	A record consisting of 12 consecutive months of: (i) no <i>E. coli</i> PMCL exceedances; (ii) continuous compliance with RTCR monitoring requirements and treatment technique requirements; and (iii) no occurrence of coliform treatment technique triggers.

Confined Space	A space large enough to bodily enter, but not designed for continuous occupancy. Special rules for entry and engagement apply.
Confirmed <i>E. coli</i> Presence	Under the GWR, a triggered source sample and one or more of the subsequently collected five additional samples with the presence of <i>E. coli</i> .
Consecutive Waterworks	Any waterworks receiving finished water from one or more waterworks.
Contaminants of Emerging Concern	Any unregulated substances detected in water bodies that may cause ecological or human health impacts. Sources include point and nonpoint, such as agriculture, urban runoff, industrial releases, ordinary household product disposal, or discharges from sewage treatment plants.
Corrective Action	Mandatory action requiring the prompt and timely correction of any significant deficiency or sanitary defect.
Cross-Connection Control Program	A mandated waterworks program that protects the waterworks from cross-connection hazards.
Direct Delivery	The direct communication between a waterworks and consumers without interruptions or other delays. Optimized delivery of information, such as a CCR.
Disinfection Benchmark	The lowest monthly average log inactivation value of <i>Giardia lamblia</i> and viruses based on the monthly average of daily or weekly log inactivations over a 12-month period under a fixed treatment regimen.
Disinfection Profile	Disinfection performance based on the daily or weekly log inactivation values of <i>Giardia lamblia</i> and viruses under a fixed treatment regimen.
Drinking Water Viewer (DWV)	A website application that proposes to share real time sampling data and other information about any regulated public waterworks, replacing the current Drinking Water Watch (DWW).
Emergency Management Plan (EMP)	Plan required of all community waterworks to develop, maintain, and certify readiness for extended power outages.
Endocrine Disruptors	Chemicals that, at certain doses in drinking water, can interfere with the synthesis, secretion, transport, binding, action, or elimination of natural hormones in the human body.
GUDI	Any water source beneath or at ground surface that (i) shows the occurrence of insects or other macroorganisms, algae, or other large-diameter pathogens such as <i>Cryptosporidium</i> and <i>Giardia</i>

Harmful Algal Blooms	<i>lamblia</i> ; (ii) has significant and relatively rapid shifts in water characteristics such as turbidity, temperature, conductivity, or pH that closely correlate to weather or surface water conditions. Accumulations of certain phytoplankton, such as cyanobacteria, that produce toxins harmful to humans, animals, and ecosystems.
Hazard Analysis	A written report that identifies hazards and necessary steps to eliminate or reduce risks to an acceptable level.
Health Advisory	Technical guidance issued by the US EPA about an unregulated contaminant to advise on possible effects to health from exposure.
Human Health Benchmarks for Pesticides	Pesticides that have no legally enforceable federal drinking water limit or health advisory. The level of certain pesticides in water for which adverse health effects are not anticipated from exposures.
Level 1 Assessment	A basic evaluation to identify the possible presence of sanitary defects, defects in distribution system coliform monitoring practices, and the likely reason that triggered the assessment.
Level 2 Assessment	A comprehensive evaluation to identify the possible presence of sanitary defects, defects in distribution system coliform monitoring practices, and the likely reason that triggered the assessment.
Online Reporting Tool	A survey 123 form hosted by VDEM to report information and updates on waterworks' status and power outages during an emergency.
Operator	An individual licensed with the requisite skills who is designated by the owner to be the person having full responsibility for the waterworks operations and any subordinate operating staff.
Operator Compliance	A properly licensed operator operating a waterworks that is classified for that level of operator.
Premise Plumbing	The potable water distribution system associated with a consumer's building infrastructure.
Sanitary Defect	Failure or imminent failure of a protective barrier in a waterworks resulting in microbial contamination, requiring "find and fix" approaches through assessments and corrective actions.
Sanitary Survey	A comprehensive evaluation of a waterworks beginning from its source to the finished potable water, including its recordkeeping, Operation & Maintenance (O&M), and overall management.

Seasonal Waterworks	A noncommunity waterworks that is not operated as a waterworks on a year-round basis, and starts up and shuts down at the beginning and end of each operating season.
Significant Deficiency	Any defect in a waterworks' design, operation, maintenance, or administration, as well as the failure or malfunction of any waterworks component that may cause, or has the potential to cause, an unacceptable risk to health or could affect the reliable delivery of potable water to consumers.
Treatment Technique	A technology or process to reduce the level of a specific contaminant sufficient for compliance.
Treatment Technique Trigger	Under the RTCR, the trigger occurs when any waterworks exceeding its allowable number of TC+ and including a single EC+ sample results. Either a Level 1 or Level 2 assessment is required to "find and fix" sanitary defects or other causes resulting in the exceedance.
VAC Violations	Certain violations of the <i>Waterworks Regulations</i> that are not associated with NPDWRs, such as lacking a licensed operator at a waterworks that provides no treatment or treatment other than filtration or disinfection, or failure to maintain reliability and operation. These violations are not typically elevated to the attention of the EPA.
Virginia's Optimization Program (VOP)	A voluntary, competitive award program to guide SWTPs with optimizing treatment performance beyond minimum regulatory requirements.
Water Audit	A method of quantifying all water flow within a waterworks to understand usage, losses, and conservation. From a water balance using available data, the method identifies specific areas for the waterworks to improve water accountability and reduce water loss.
Water Hauling	A process to temporarily meet water demand or supplement water production by transporting potable water from other waterworks under prescribed monitoring and reporting criteria.
Water Management Program	A program to reduce the risk for <i>Legionella</i> growing and spreading within the piping system of buildings, thereby reducing the risk of Legionnaires' disease.

# Chapter 1 – Sanitary Surveys

## Summary

This chapter provides procedures, forms, and templates on how to conduct sanitary surveys and manage the ancillary tasks associated with these surveys pursuant to 12VAC5-590-350. The sanitary survey is a core function of the Public Water System Supervision (PWSS) program. All sanitary survey reports must include the following information:

- Site visit information;
- Changes to the water system inventory;
- Significant deficiencies;
- Corrective action plans, if applicable;
- Tracking corrective actions; and
- Other related information.

A waterworks with significant deficiencies must establish a corrective action plan that the compliance specialist can track through SDWIS.

## 1. Purpose

The EPA requires a sanitary survey for all waterworks. Sanitary surveys ensure an adequate supply of affordable, safe drinking water that meets federal and state drinking water standards.

## 2. Essential Elements of a Sanitary Survey

The eight (8) essential elements of a sanitary survey include:

- i. Source(s)
- ii. Treatment
- iii. Distribution System
- iv. Finished Water Storage
- v. Pumps, Pumping Facilities and Controls
- vi. Monitoring & Reporting (M&R) and Data Verification
- vii. System Management & Operation
- viii. Operator Compliance with VDH & Department of Professional and Occupational Regulation (DPOR) requirements

### **2.1. Source(s)**

There are three categories of source water:

- Groundwater sources;
- Surface water sources, including GUDI; and
- Wholesale waterworks, which can include GW or SW.

### ***2.1.1. Surface Water***

The sanitary survey evaluates intake structures and all valves and piping that transport source water to the water treatment plant (WTP), and associated pumping facilities. By definition, surface water also includes groundwater under the direct influence of surface water (i.e., GUDI sources).

### ***2.1.2. Groundwater Wells***

The sanitary survey evaluates the well, well casing, grout (when possible during new well construction), valves, and discharge, including the well pump, controls and other appurtenances.

### ***2.1.3. Spring***

The sanitary survey evaluates the spring box, controls, valves, and associated pumping facilities.

### ***2.1.4. Source Water Assessment and Protection Plans***

The sanitary survey reviews and updates the source water protection plan only if significant changes were observed during the sanitary survey (see also *Source Water Manual*).

## **2.2. Treatment**

The sanitary survey evaluates treatment, which is any chemical or physical processing of the source or finished water that alters or enhances the water quality. Treatment evaluation includes:

- All elements of chemical treatment systems to treat raw water or finished water anywhere in the system (e.g., pumps for chemical feeders, day tanks, or chemical mixing tanks, contact tanks, pumps for chemical transfer, and chemical safety equipment;
- Aeration or agitation within the pipes or any vessel, pond, reservoir or basin;
- Sedimentation, adsorption or exchange processes;
- Filtration, including backwash system and all appurtenances;
- Ultraviolet radiation reactors;
- Clearwells, contact tanks, and inter-connecting pipelines; and
- Pumps and raw or treated water storage tanks supplying water to treatment processes.

## **2.3. Distribution System**

The sanitary survey evaluates all piping and appurtenances following all treatment (or entry point tap) to convey finished water to consumers, with the exception of finished water storage and pumping components. Air release valves, fire hydrants, yard hydrants, blowoff valves, sampling stations, meters, isolation valves, backflow prevention devices (such as an RPZ), etc. are included.

## **2.4. Finished Water Storage**

The sanitary survey evaluates all finished water storage vessels following treatment, including hydropneumatic tanks, atmospheric storage tanks, elevated storage tanks, and bladder tanks.

## **2.5. Pumps, Pump Facilities and Controls**

The sanitary survey evaluates intermediate pumps, finished water pumps at the treatment plant, and booster pumps in the distribution system.

## **2.6. Monitoring and Reporting (M&R) and Data Verification**

The sanitary survey evaluates source and finished water quality data (i.e., bacteriological, physical, chemical, and radiological). This element is primarily evaluated in preparation for the site visit and includes the following: sampling schedules; compliance sample results; violations and public notice completion statements; monthly and quarterly operation reports; past sanitary survey documentation and photos; current connections and population; determine whether monitoring plans are to be updated; and permits and waterworks description sheets. This task also includes reviewing all field sampling and data collection conducted by ODW field staff during the sanitary survey for verification of treatment unit performance (i.e., not for compliance with the SDWA), as well as an assessment of those waterworks with onsite laboratory facilities.

## **2.7. Management and Operations**

Management and operations affect the overall water quality and reliability of the entire system. This element verifies the following:

- a) Corrective actions of cited deficiencies;
- b) Recommendations from previous surveys;
- c) Cross-connection control program at the plant(s) and in the distribution system;
- d) Complaint history and response;
- e) Water loss and water audits;

This evaluation includes the total amount of water produced or purchased compared to the total amount of water billed by the waterworks for revenue. The American Water Works Association (AWWA) recommends the waterworks perform a water audit at least annually. Staff should discuss water loss with the waterworks owner or operator, expectations on water loss, the estimated loss, and the strategies to mitigate losses. If the sanitary survey finds 30% or more in real water loss, then issue a Significant Deficiency. [Note: This percentage loss might not be readily quantifiable, so a determination of a “significant deficiency” cannot be made. However, the inspector/surveyor should engage the waterworks operator/owner to address this issue of losses in a robust manner.] Real water losses include leaks on transmission or distribution mains, leaks on service connections up to customer meters, and storage tank leaks and overflows. There are numerous publications and tools available for waterworks to conduct an annual water audit (see AWWA M36 Manual).



f) Asset Management Program;

This assessment considers the current state of facilities and equipment owned and operated by the waterworks, and planning and scheduling of maintenance, repair, and replacement at the lowest appropriate costs. Although state and federal regulations currently do not require asset management programs, they are encouraged. EPA information on the subject is available on their website. For example:

- i. Asset Management Best Practice Guide;
- ii. Asset Management: A Handbook for Small Systems – STEP Guide Series;
- iii. Taking Stock of Your Water System: A Simple Asset Inventory for Very Small Drinking Water Systems;
- iv. Building an Asset Management Team; and
- v. Asset Management for Local Officials.

*Note:* Separate Capital Improvement Programs (CIPs) may also be developed by the waterworks or public utilities for long-term management and operation.

g) Operational supplies;

h) Onsite laboratory;

i) Emergency Management Plan. Every community waterworks (CWS), including consecutive systems, must have a current Emergency Management Plan for Extended Power Outages, as required by the *Waterworks Regulations*. It must be kept current and be readily accessible to implement when required. The waterworks must certify in writing to the appropriate ODW field office that they have developed the plan. Specific information required in the plan is described in the *Waterworks Regulations*. (See 12VAC5-590-505.)

## 2.8. Operator Compliance

The qualifications of waterworks operations personnel must match the overall facility classification, including the number of personnel and coverage of the waterworks when personnel are out sick or on vacation, according to the *Waterworks Regulations* and DPOR requirements. (See 12VAC5-590-461). In particular, if a waterworks consists of multiple treatment facilities, each may be individually classified for the purpose of determining the operator requirements.

During the sanitary survey, ODW staff should engage the operator in a friendly (but frank), open, and respectful dialogue on treatment process observations as the “walk-through” survey is being conducted. Performance of field tests is encouraged and results of those tests should be noted in the report. Survey staff should have a “working” knowledge of any facility being inspected.

## 3. Frequency of Sanitary Surveys

The Ground Water Rule (GWR) requires the applicable elements to be evaluated a minimum of once every three years for community systems and once every five years for noncommunity waterworks. Field offices also must schedule additional targeted site visits (not sanitary surveys)

as described in Table 1. Scheduling and managing sanitary surveys and site visits is facilitated through SWIFT, a GEC software described in Chapter 15, Section 9. While the use of this resource is limited in its initial deployment, all field staff should undertake the available SWIFT training in preparation for statewide use.

*Note:* If there are sanitary defects and/or significant deficiencies observed following a sanitary survey, field staff must determine whether to implement corrective actions either informally or formally depending on the situation. Informal corrective action is one that can be corrected with a short period of time; e.g., a week, without the need for a written plan, and with the waterworks owner notifying the staff of its completion via photographic evidence or other means. Formal corrective action requires a corrective action plan (CAP) with a schedule for correction that is agreeable to the ODW field office and the waterworks owner. Not all corrective actions are equal. Therefore, it is expected that field staff will need to exercise some judgment when developing a CAP with the owner. When the waterworks completes an item on the CAP, the owner must notify field staff within 7 days of completion. Depending on the type of corrective action, field staff may want to have a follow-up site visit. Follow-up visits can also be scheduled in SWIFT. Scheduling these follow-up visits will depend on the nature of the corrective action taken and whether physical verification of completion is required. The RTCR allows for consultation between the parties and setting up mutual CAPs, so there are alternative approaches that staff can utilize to “close out” these action items.

<b>Topic</b>	<b>Site Visit Type</b>	<b>Frequency</b>	<b>Notes</b>
Violations Level 2 Assessments Consent Orders Temporary Permits	TECH – Technical Assistance	At least semi-annually until resolved.	Staff will consult the Field Director to determine if issues require routine site visits to ensure correction.
Significant TMF issues as assessed by the inspector and their supervisor.	TECH – Technical Assistance		Coordinate with TCDO; consider scheduling site visit with Sustainability Coordinator.
Significant or minor deficiencies discovered during Sanitary Survey.	SSVF – Sanitary Survey Follow-Up		Staff will use the follow-up inspection scheduling feature in SDWIS to schedule these inspections. Follow-up inspections may not be required for minor deficiencies if waterworks provide ODW with photographs or other documentation of correction of the deficiency.
Noncommunity ownership or operator changes; new or “found” waterworks.	TECH – Sanitary Survey Follow-Up	At least annually until the waterworks demonstrates adequate TMF capacity.	New or “found” waterworks require a full SNSV 6-12 months after their first SNSV. Staff will use the follow-up inspection scheduling feature in SDWIS to schedule these inspections.
TNC’s on monthly increased monitoring qualifying for return to quarterly routine monitoring.	LV2A – Level 2 Assessment RTCR	One site visit	The <i>Waterworks Regulations</i> require a “sanitary survey or site visit” to return waterworks to quarterly monitoring. Complete Level 2 Assessment to evaluate potential microbial contamination pathways.

The following items trigger monthly bacteriological monitoring by a TNC per 12VAC5-590-370 A 9 a:

- A Level 2 assessment or two Level 1 assessments in a rolling 12-month period;
- An *E. coli* PMCL violation;
- A coliform treatment technique violation;
- Two monitoring violations for failure to sample routine total coliform samples per 12VAC5-590-370 A 2; or
- One monitoring violation for failure to sample routine total coliform samples per 12VAC5-590-370 A 2 and one Level 1 assessment in a rolling 12-month period.

Pursuant to 12VAC5-590-370 A 10, ODW may return a TNC to quarterly routine monitoring if:

- The waterworks is using groundwater that is classified as not GUDI;
- The waterworks has maintained a clean compliance history for a minimum of 12 consecutive months; and
- The department has completed a sanitary survey or site visit within 3 months of the end of the 12 consecutive month period.

Field staff must complete the evaluation of each applicable essential element in SWIFT Surveys. Following completion of an inspection, field staff will use SWIFT Surveys to migrate the required sanitary survey information to SDWIS.

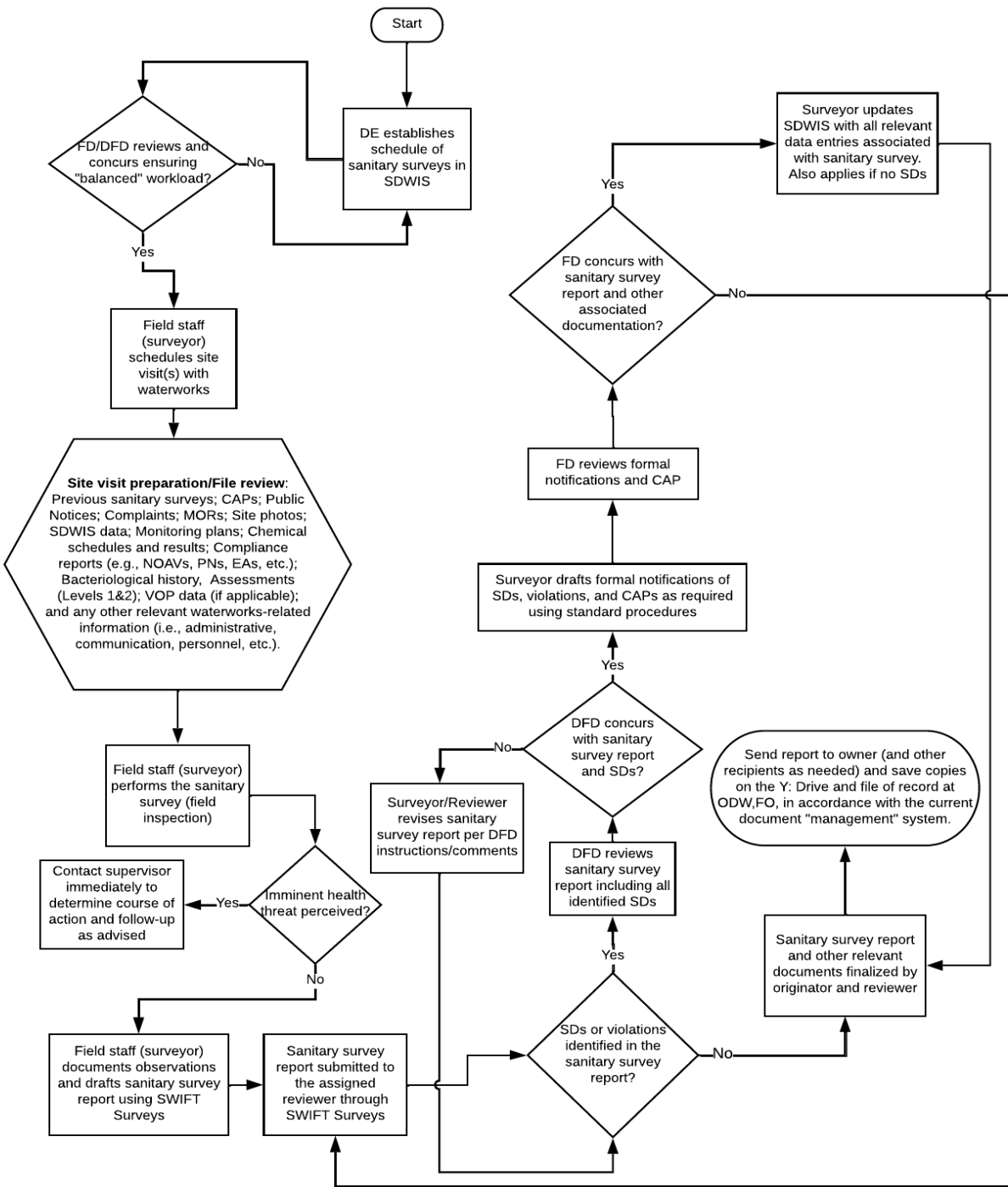
#### **4. Sanitary Survey Process**

Field staff use SWIFT Surveys to plan for, perform, and report on all findings during sanitary surveys. Flow Chart 1 depicts the procedures needed to perform a sanitary survey. The major activities included are:

- Scheduling;
- File and database pre-site visit reviews;
- Field inspection (may require multiple visits);
- Sanitary survey report completion;
- Supervisor review including verification of significant deficiencies and violations; and
- Database (i.e., SDWIS) update.

#### **4.1. Significant Deficiencies**

The waterworks owner is required to correct all significant deficiencies identified by the field staff during sanitary surveys. A significant deficiency means any defect in a waterworks' design, operation, maintenance, or administration, as well as any failure or malfunction of any system component that may cause, or have the potential to cause, an unacceptable risk to health or that could affect the reliable delivery of safe drinking water. A list of potential significant deficiencies for the various sanitary survey elements and their SDWIS category codes is provided in Tables 2A through 2H. The shaded cells in Tables 2A and 2B indicate potential significant deficiencies for surface water treatment only. Note that the lists below are NOT exclusive: additional defects identified during a sanitary survey may be identified as a significant deficiency.



**Legend/Notes:**  
 DE=District Engineer; FD=Field Director; DFD=Deputy Field Director; SDWIS=Safe Drinking Water Information System; CAP=Corrective Action Plan; MOR=Monthly Operation Report; PN=Public Notification; NOAV=Notice of Alleged Violation; EA=Enforcement Action; VOP=Virginia Optimization Program; ODW,FO=Office of Drinking Water, Field Office; SD=Significant Deficiency.  
 Each completed sanitary survey report is to be sent to the waterworks owner, with copies saved to the Y shared drive and sent to other interested parties, and a copy for the file of record.

Flow Chart 1. Routine Sanitary Survey Process Inter-Relationships.

<b>Sanitary Survey Element</b>	<b>SDWIS Category Code</b>	<b>Description (included in SDWIS)</b>
Source	SO	SO01-Potential contamination source or activity within 50 feet of well
Source	SO	SO02-Potential contamination of well from surface water runoff
Source	SO	SO03-Well has not been approved by VDH-ODW
Source	SO	SO04-Sanitary seal or pitless adapter well cap missing or defective
Source	SO	SO05-Spring box construction deficient; susceptible to contamination
Source	SO	SO06-Existing demand exceeds source pumping rate
Source	SO	SO07-Existing demand exceeds source "safe yield"
Source	SO	SO08-Existing demand exceeds intake components' hydraulic capacity
Source	SO	SO12-Unsafe materials (toxic or explosive) stored in well house
Source	SO	SO13-Cross connection in well house
Source	SO	SO25-Well not equipped with a downward facing vent, intact screen with a small enough opening size to prevent entry of insects
Source	SO	SO33-Spring protected from the entry of surface water (flooding)
Source	SO	SO35-Spring house does not have an overflow/vent affixed with #24 mesh screen or a duck bill, and an air gap
Source	SO	SO36-Spring cross connected
Source	SO	SO38-Spring house or lot contain unsafe materials (toxic or explosive)
Source	SO	SO44-Spring lot not free of chemical storage, unapproved uses, generators not compliant with the Source Water Manual, or other sources of contamination
Source	SO	SO48-Activities or pollution sources in the immediate intake area represent a potential health risk
Source	SO	SO51-Intake components restrict the ability of the waterworks to meet present demand
Source	SO	SO53-Present water demand exceeds the permitted source capacity

<b>Sanitary Survey Element</b>	<b>SDWIS Category Code</b>	<b>Description (included in SDWIS)</b>
Treatment	TR	TR01-Filter loading exceeds permitted rate <sup>1</sup>
Treatment	TR	TR02-Filter flow controls inoperable or improperly calibrated <sup>1</sup>
Treatment	TR	TR03-Filter backwash rate or duration inadequate <sup>1</sup>
Treatment	TR	TR04-Filter backwash pump controls inoperable or improperly calibrated <sup>1</sup>
Treatment	TR	TR05-Failure to maintain continuous disinfection
Treatment	TR	TR06-Minimum chlorine residual not maintained to meet CT
Treatment	TR	TR07-Entry point chlorine residual < 0.2 mg/L <sup>2</sup>
Treatment	TR	TR08-Chemicals not certified to ANSI/NSF/CAN 60 Standard
Treatment	TR	TR09-Chemical storage or handling present risk of explosions
Treatment	TR	TR10-Unprotected or improperly protected cross-connections <sup>3</sup>
Treatment	TR	TR11-Inadequate continuous treatment for MCL or TT requirements <sup>4</sup>
Treatment	TR	TR12-Coagulant/Coagulant Aid improperly applied
Treatment	TR	TR13-Mixer inoperable or inadequate
Treatment	TR	TR14-No floc formation

<b>Table 2B. Potential Significant Deficiencies - Treatment.</b>		
<b>Sanitary Survey Element</b>	<b>SDWIS Category Code</b>	<b>Description (included in SDWIS)</b>
Treatment	TR	TR15-Excess sludge accumulation
Treatment	TR	TR16-Disinfection profile unavailable or not understood by Operator <sup>5</sup>
Treatment	TR	TR16-Disinfection profile unavailable or not understood by OIRC
Treatment	TR	TR60-chlorine contact tank not in service
Treatment	TR	TR66-Field test is not compliant with the minimum residual required to ensure 4-log inactivation
Treatment	TR	TR72-Flocculation not all mixers operational and meeting mixing requirements
Treatment	TR	TR78-Sedimentation Basins floc settleability not adequate or floc carry-over observed
Treatment	TR	TR84-Superpulsators satisfactory sludge blanket not maintained
Treatment	TR	TR86-Superpulsators evidence of sludge carryover to filters
Treatment	TR	TR89-Solids Contact Clarifier evidence of floc carry-over
Treatment	TR	TR91-Solids Contact Clarifier inadequate general performance
Treatment	TR	TR93-Absorption Clarifier evidence of floc carry-over
Treatment	TR	TR96-Absorption Clarifier good general performance
Treatment	TR	TR101-DAF floc carry-over observed
Treatment	TR	TR105-DAF inadequate backflow prevention on spray system
Treatment	TR	TR112-Gravity Filtration MORs do not indicate that filter backwash frequency based on plant established maximum values
Treatment	TR	TR28-Unprotected cross connection on the chemical mixing tank
Treatment	TR	TR35-Anti-siphon protection not provided on the fluorosilicic acid feeder
Treatment	TR	TR41-No operable anti-siphon vacuum breaker or an air gap on fluoride saturator make-up water line
Treatment	TR	TR52-Chlorine gas automatic leak detection not provided and operable
Treatment	TR	TR125-Membrane filtration inadequate or non-operational transmembrane pressure alarm and shutdown set points
Treatment	TR	TR126-Membrane filtration inadequate or non-operational minimum air pressure alarm and shutdown set points
Treatment	TR	TR127-Membrane filtration inadequate or non-operational raw water turbidity alarm and shutdown set points
Treatment	TR	TR128-Membrane filtration inadequate or non-operational filter effluent turbidity alarm and shutdown set points
Treatment	TR	TR129-Membrane filtration inadequate or non-operational chlorine residual alarm and shutdown set points
Treatment	TR	TR130-Membrane filtration inadequate or non-operational direct integrity test alarm and shutdown set points
Treatment	TR	TR131-Membrane filtration direct integrity testing frequency inadequate
Treatment	TR	TR165-UV high flow alarm not operational or settings inadequate
Treatment	TR	TR166-Low UVT alarm not operational or settings inadequate
Treatment	TR	TR167-UV calculated dose alarm not operational or settings inadequate
Treatment	TR	TR168-UV intensity alarm not operational or settings inadequate
Treatment	TR	TR169-Clearwell access not protected from contamination
Treatment	TR	TR172-Clearwell vents and other openings not downturned and protected with non-corrodible insect screen

<b>Table 2B. Potential Significant Deficiencies - Treatment.</b>		
<b>Sanitary Survey Element</b>	<b>SDWIS Category Code</b>	<b>Description (included in SDWIS)</b>
Treatment	TR	TR173-Clearwell roof or cover not watertight
Treatment	TR	TR181-No approved backflow device to isolate process water at treatment plant from distribution system, with current testing documentation
Treatment	TR	TR209-Cl <sub>2</sub> potential for explosions
Treatment	TR	TR216-Ozone disinfection performance not adequate
Treatment	TR	TR217-Ozone CT requirements not consistently met
Treatment	TR	TR222-Inadequate alarm or shutdown settings to address a low ozone event

1. All filter types.

2. This is a SWTR requirement.

3. A cross-connection control device is missing or is inadequate.

4. MCL = Maximum Contaminant Level; TT= Treatment Technique.

5. 40 CFR § 141.172 (b)(6) states: "The system must retain disinfection profile data in graphic form, as a spreadsheet, or in some other format acceptable to the State for review as part of the sanitary surveys conducted by the State." 40 CFR § 141.16 (b)(3)(iv) states: "When conducting sanitary surveys for systems required to comply with the disinfection profiling requirements in § 141.172 of this chapter, the State must also review the disinfection profile as part of the sanitary survey."

<b>Table 2C. Potential Significant Deficiencies - Distribution System.</b>		
<b>Sanitary Survey Element</b>	<b>SDWIS Category Code</b>	<b>Description (included in SDWIS)</b>
Distribution System	DS	DS01-Distribution pressure falls below 20 psig at the service connection with repeated consumer complaints, subsequently validated by real-time field measurements.
Distribution System	DS	DS02-Failure to have active Cross-Connection Control Program
Distribution System	DS	DS03-Distribution leakage rate > than 30%
Distribution System	DS	DS14-Air and vacuum relief valve ports not properly installed to prevent against cross connections

<b>Table 2D. Potential Significant Deficiencies - Finished Water Storage.<sup>1</sup></b>		
<b>Sanitary Survey Element</b>	<b>SDWIS Category Code</b>	<b>Description (included in SDWIS)</b>
Finished Water Storage	FW	FW01-Tank not watertight
Finished Water Storage	FW	FW02-Roof / Access hatches not watertight
Finished Water Storage	FW	FW03-Tank structurally unsound
Finished Water Storage	FW	FW04-Vent improperly screened
Finished Water Storage	FW	FW05-Overflow improperly screened or protected from contamination

<b>Table 2D. Potential Significant Deficiencies - Finished Water Storage.<sup>1</sup></b>		
<b>Sanitary Survey Element</b>	<b>SDWIS Category Code</b>	<b>Description (included in SDWIS)</b>
Finished Water Storage	FW	FW06-Drain improperly screened or protected from contamination
Finished Water Storage	FW	FW07-Potential contamination of finished water from surface water runoff
Finished Water Storage	FW	FW99-Sanitary Defect

*1. Does not include clear wells used for contact time, T, as in CT requirements.*

<b>Table 2E. Potential Significant Deficiencies - Pumps, Pumping Facilities and Controls.</b>		
<b>Sanitary Survey Element</b>	<b>SDWIS Category Code</b>	<b>Description (included in SDWIS)</b>
Pumps (facilities and controls)	PU	PU01-Critical pump equipment inoperable
Pumps (facilities and controls)	PU	PU02-Unprotected or improperly protected cross-connections
Pumps (facilities and controls)	PU	PU05-Possible contaminants stored in the pump station building

<b>Table 2F. Potential Significant Deficiencies - Monitoring and Reporting and Data Verification.</b>		
<b>Sanitary Survey Element</b>	<b>SDWIS Category Code</b>	<b>Description (included in SDWIS)</b>
M&R & Data Verification	MR	MR01-Not using certified lab for compliance testing
M&R & Data Verification	MR	MR02-No BSSR approved by VDH-ODW
M&R & Data Verification	MR	MR03-No TSWMP approved by VDH-ODW
M&R & Data Verification	MR	MR04-Sampling not in accordance with BSSR
M&R & Data Verification	MR	MR05-Sampling not in accordance with TSWMP
M&R & Data Verification	MR	MR27-Review of SDWIS, MOR, field samples, and daily log water quality sampling results indicate evidence of potential sampler error, potential data falsification, or other data problems.
M&R & Data Verification	MR	MR42-Chlorine residuals, pH, temperature, flowrate, and clearwell level not monitoring and controlled in range to meet inactivation requirements.
M&R & Data Verification	MR	MR45-Inadequate backflow protection at lab sinks.



<b>Table 2G. Potential Significant Deficiencies – System Management and Operation.</b>		
<b>Sanitary Survey Element</b>	<b>SDWIS Category Code</b>	<b>Description (included in SDWIS)</b>
System Management & Operations	SM	SM01-ODW-required operation testing not performed / recorded
System Management & Operations	SM	SM02-Lab log and data sheets not readily available <sup>1</sup>
System Management & Operations	MO	MO31-Operation Permit capacity been exceeded

1. Applicable to surface water and GUDI treatment facilities, and GW systems required to meet 4-log virus inactivation.

<b>Table 2H. Potential Significant Deficiencies – Operator Compliance.<sup>1</sup></b>		
<b>Sanitary Survey Element</b>	<b>SDWIS Category Code</b>	<b>Description (included in SDWIS)</b>
Operator Compliance	OC	OC01-Number and Class of Operators do not meet <i>Waterworks Regulations</i>

1. For additional details, see 12VAC5-590-461.

Field staff must be familiar with the potential causes of significant deficiencies. The lists above identify possible significant deficiencies for waterworks but cannot account for all of the possible significant deficiencies for all waterworks. Field staff may also determine event-specific significant deficiencies as appropriate.

If a field staff member performing a sanitary survey observes a potential significant deficiency, concurrence must be obtained from the Deputy Field Director and/or the Field Director before finalizing the report and formally notifying the waterworks owner. The field office must answer at least one of the following questions in the affirmative (=yes) in order to confirm that it is a significant deficiency:

- Does the deficiency cause the potential for acute or chronic contaminants to be introduced into the drinking water?
- If left uncorrected will the deficiency cause the potential for the introduction of contaminants into the drinking water at some time in the future that has the potential for acute or chronic health effects?
- Does the deficiency affect treatment in a manner that increases the potential risk to public health?
- Does the deficiency cause the introduction of contaminants into the drinking water that has the potential for acute or chronic health effects?

Within 30 days of the date the deficiency was identified, the ODW field staff must notify the waterworks owner in writing of a confirmed significant deficiency, as well as send a full copy of the sanitary survey report. Staff must use the sample significant deficiency notification letter

and corrective action plan in FM-C1-Attachment 1. If a significant deficiency exists, then corrective action is required.

Note that the waterworks may be able to correct some significant deficiencies during the site visit or within several days of the site visit. Examples of these cases include minor repairs, such as replacing vent or overflow screens, or repairing pumps. In these cases, field staff may document the correction of the deficiency within 30 days of the inspection instead of following the corrective action plan (CAP) procedures described above.

If field staff indicate a significant deficiency, SWIFT Surveys will create a SDWIS compliance schedule when migrating inspection records to SDWIS. Field staff must add the required actions into the compliance schedule when completing the sanitary survey as described in the *ODW SDWIS Manual*.

#### **4.2 Minor Deficiencies**

This level of deficiency is appropriate for items that require correction, but do not rise to the level of a significant deficiency. Examples include one of two pumps out of service, or the waterworks does not have documentation to demonstrate that one of their treatment chemicals is NSF 60 certified.

As with significant deficiencies, SWIFT Surveys will create a SDWIS compliance schedule when migrating inspection records to SDWIS. Field staff must add the required actions for the compliance schedule in SWIFT Surveys when completing the sanitary survey as described in the *ODW SWIFT Surveys Instructions*. Field staff will provide the waterworks with a timeline for correction of minor deficiencies and will follow up on that timeline to ensure that the deficiencies are corrected.

*Note:* There is no specific timeline for minor deficiencies. However, less than 7 days for correction seems adequate. It is expected that staff and the owner would have already discussed this informally at the sanitary survey with an understanding that correction will be done as agreed. Best case, these minor deficiencies are corrected in a timely manner and consequently do not show up in the final sanitary survey report as they would have already been corrected before the sanitary survey report is forwarded to the owner. The advantage here is that there is no CAP and timetable involved. It is incumbent on staff to “informally” track these minor deficiencies to closure as agreed. If nothing is done and the owner does not deliver the “corrective action” within the 7 days as agreed, then staff must generate a schedule in SWIFT with required corrective actions.

#### **4.3 Recommendations**

A recommendation is a best practice suggested by ODW field staff that a waterworks is not required to implement. SWIFT Surveys do not migrate SDWIS compliance schedules for recommendations. Field staff may follow up with the waterworks to ensure that recommendations have been considered.

#### 4.4. Review and Signatory Authority

Table 3 outlines the roles of the field staff by waterworks type. The Field Director has the discretion to make adjustments to the surveyor assignments in the overall sanitary survey process to accommodate any needed changes in personnel, resources, and other situations. Note that SDWIS data migration following the sanitary survey is the responsibility of the staff who conducted the survey. Field staff will ensure that they have assigned the correct reviewer in the “Parties Present” screen in SWIFT Surveys where applicable.

<b>Table 3. Surveyors, Reviewers, and Signatory Authorities on Sanitary Surveys.</b>		
<b>Waterworks Type:</b>	<b>Surveyed By:</b>	<b>Reviewed By:</b>
Surface Water or GUDI	ADE; DE	DE or DFD; FD
Groundwater or Consecutive	ADE; ESS; EHTS; CS	DE; DFD; FD; CS

*ADE=Assistant District Engineer; DE=District Engineer; DFD=Deputy Field Director; FD=Field Director; ESS=Environmental Specialist Senior; EHTS=Environmental Health Technical Specialist. CS = Compliance Specialist.*

#### 4.5. Imminent Health Threats

During the course of a site visit, if the surveyor believes that the waterworks is under an imminent health threat (e.g., one or more of the protective barriers have been compromised and chemical or microbial contamination is believed to be occurring), then the surveyor must contact their supervisor as soon as practical to discuss the situation and decide on an appropriate course of action. Findings that may indicate an imminent health threat include:

- Well flooding/surface water intrusion;
- Contamination of source or finished water from a chemical spill or cross-connection;
- Unapproved use of a groundwater source without acceptable water quality data;
- Zero or negative system pressure (See Chapter 12 – Oversight on Water Main Breaks);
- Major water main break/interruption (See Chapter 12 – Oversight on Water Main Breaks);
- Inadequate disinfection, log inactivation not achieved, minimum chlorine residual not maintained;
- Elevated filtered water turbidities;
- Unprotected openings in finished water tanks with evidence of contamination (intrusion by birds, insects, etc.); and
- Other (e.g., risk to the surveyor).

If the Field Director and other appropriate VDH management (e.g., one or more of ODW Office Director, ODW Deputy Director, ODW Division Directors, Toxicologist, Epidemiologist, Local Health District Director, etc.) can coordinate and concur with supporting the issuance of a

Special Notice<sup>a</sup>, the surveyor should assist the waterworks with preparation of the notice. The surveyor should provide technical assistance on site to correct the problem, whenever possible. Depending on the severity of the situation, the surveyor may need to end the sanitary survey and schedule a follow-up site visit.

#### **4.6. Safety Concerns**

The surveyor must not enter confined spaces or climb elevated structures such as tanks. Other methods and devices, such as binoculars, mirrors, and lighting, may be used to accomplish the field observations. Field staff will request that the waterworks provide professional inspection reports or photographs of components that ODW staff cannot inspect. The surveyor should also be generally aware of other potential safety concerns that could result in personal harm (e.g., slippery surfaces, loose electrical connection, venomous snakes, etc.) at the waterworks as the survey is being conducted. Safety is an important aspect of our field work, and staff, especially newer staff, should pursue training events as they become available (e.g., through ODW's Training, Capacity Development, and Outreach (TCDO) Division, using a "buddy/mentor" system for sanitary surveys, etc.). All field staff should at least be familiar with safety awareness as described in Chapter 5 and should practice safety at all times while conducting sanitary surveys, or field work, in general.

#### **5. Sanitary Survey Reports**

ODW has coordinated with GEC to program Sanitary Survey questions and reports into the SWIFT Surveys software. SWIFT Surveys will select applicable sanitary survey questions based on information about the waterworks in SDWIS. More details about this process are available in the *ODW SWIFT Surveys Instructions*.

SWIFT Surveys Reports used by ODW include:

- Field Report – Contains useful information for performing an inspection and can serve as a paper-based backup if a tablet is not available for use in the field.
- Site Visit Letter – A letter that summarizes the inspection findings and required follow-up actions.
- Completed Checklist Report – Includes responses to all sanitary survey questions and additional information.

#### **6. SDWIS Update**

Upon completion of the sanitary survey report, field office staff must submit the inspection through SWIFT Surveys to migrate data to the SDWIS - "Site Visits" module as described in the *ODW SWIFT Surveys Instructions*.

#### **7. Distribution of Sanitary Survey Reports**

Field staff must transmit the site visit letter and completed checklist report from SWIFT Surveys to the waterworks owner and to the operations supervisor for all systems. The ODW Central Office must receive complete sanitary survey reports in electronic file format (PDF) in

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<sup>a</sup> Special Notices are discussed in Chapter 14.

accordance with the current “electronic document management” system. Report files should be posted under the appropriate field office, by calendar year, and other required attributes.

Files must be named using the following format: PWSID#\_SS\_yyyy-mm-dd, where the date (yyyy-mm-dd) is the day that the survey was performed. By example, a sanitary survey for the City of Richmond WTP, performed on May 16, 2014, would be titled: 4760100\_SS\_2014-05-16.

All sanitary survey reports must be written, reviewed, and sent out of the field office within 30 calendar days following the survey site visit. If the e-mail address of a copyholder is available, staff should use the “paperless option” for delivery of the report.

### **8. Corrective Action Plans (CAP)**

If the sanitary survey identifies a significant deficiency, the field staff must generate a draft CAP to be included with the formal notification of the significant deficiency (see FM-C1-Attachment 1). The transmittal letter must inform the waterworks owner to review, sign, and return the proposed CAP within 45 days. The waterworks owner may revise the proposed CAP (with ODW review and approval) or develop an owner-generated CAP (see below). The CAP will include a list of specific activities, along with a schedule, to correct any significant deficiencies. Staff should use the SDWIS compliance schedule to document/track the required tasks in the CAP. CAPs are enforceable schedules of compliance and must include the following:

- A statement of each deficiency;
- The action(s) necessary to correct each deficiency;
- Detailed schedule with “begin” dates and “deadlines” for each step to correct each deficiency; and
- A statement that the waterworks will notify the appropriate field office, in writing, within 30 days of completing individual scheduled actions.

CAPs may include the following:

- Proposed interim measures to prevent a recurrence;
- Source of funding, if necessary; and
- Any follow-up actions.

If the waterworks owner desires to develop the CAP, field office staff must advise the waterworks owner that:

- A 30-day period to consult with ODW field staff regarding the corrective action(s) is allowed; and
- A subsequent 15-day period to submit to ODW a written CAP is also allowed.

ODW will give CAPs the highest priority for review as they address a potential threat to public health. ODW must act on CAP submittals within 30 days of receipt. Field office staff will log CAP action items and associated completion dates in SDWIS for compliance tracking.

**9. Corrective Action Plan (CAP) Follow-Up**

Within 120 days of receiving written notification of a significant deficiency, the waterworks owner must complete all corrective actions or be in compliance with the schedule of activities in an approved CAP. Failure to complete corrective actions or meet individual approved schedule deadlines is a treatment technique violation (i.e., a Tier 2 Notice of Alleged Violation with public notice). However, if reasonable events preclude the meeting of a deadline, the CAP may be revised, and no violation would be incurred.

The waterworks owner must notify ODW within 30 days with written verification of completing any required corrective actions. Field staff will log all deadlines for scheduled actions in SDWIS for tracking purposes.

Field staff will complete a site visit to confirm correction of the significant deficiency after notification from a waterworks of CAP completion. ODW must conduct the site visit or receive documented evidence of corrections (i.e. photos) within 30 days of notification from the waterworks. A written report of the inspection and transmittal letter (see FM-C1-Attachments 2 and 3) must document and inform the waterworks of ODW’s concurrence or non-concurrence with the waterworks that the completed corrective action(s) meet(s) the intent of the CAP.

*Note:* Failure to comply with the required CAP will result in a treatment technique (TT) violation. The waterworks must notify the ODW within 30 days of completing the required corrective action. The ODW has 30 days after receiving notification from the waterworks of completion of a corrective action plan to verify. Photographic evidence may have its limitations, so field staff should apply discretion/judgement on a case-by-case basis.

**10. Significant Deficiencies and Violation Notices**

Virginia Administrative Code (VAC) violations that have also been identified as potential significant deficiencies are listed in Table 4.

<b>Table 4. Significant Deficiencies and VAC Violations.</b>	
<b>VAC Violation</b>	<b>Significant Deficiency</b>
B1 – Failure to Follow Approved BSSP	MR04 – Sampling not in accordance with BSSP
B2 – Lacks Properly Licensed Operator	OC01 – Number and Class of Operators do not meet WW Regulations
C6 – Less Than 20 psi at Service Connection	DS01 – Distribution pressure falls below 20 psi
C3 – Reliability problem; examples in WM 908 Attachment 2:	
<ul style="list-style-type: none"> <li>Failure to reliably maintain treatment or chemical addition – chlorination</li> </ul>	TR05 – Failure to maintain continuous disinfection TR06 – Minimum chlorine residual not maintained to meet CT TR07 – Entry point chlorine residual < 0.2 mg/L
<ul style="list-style-type: none"> <li>Failure to reliably maintain treatment or chemical addition – corrosion control</li> </ul>	TR11 – Inadequate continuous treatment
<ul style="list-style-type: none"> <li>Failure to maintain infrastructure – well seal</li> </ul>	SO04 – Sanitary seal or pitless adapter well cap missing or defective
<ul style="list-style-type: none"> <li>Failure to maintain infrastructure – storage tanks</li> </ul>	FW01 – Tank not watertight FW02 – Roof/Access hatches not watertight FW03 – Tank structurally unsound

<b>Table 4. Significant Deficiencies and VAC Violations.</b>	
<b>VAC Violation</b>	<b>Significant Deficiency</b>
	FW04 – Vent improperly screened FW05 – Overflow improperly screened or protected from contamination FW06 – Drain improperly screened or protected from contamination
<ul style="list-style-type: none"> <li>• Failure to maintain infrastructure – distribution system</li> </ul>	DS03 – Distribution leakage <sup>b</sup> (>30%)

When a VAC violation is identified in the sanitary survey, it should be issued in accordance with Chapter 14 of this manual. When the Deputy Field Director confirms that the item is also a significant deficiency, then the significant deficiency data must be entered into SDWIS, and “linked” to the violation. If the waterworks is non-compliant with the CAP because it fails to meet a scheduled deadline or resolve a corrective action to the satisfaction of ODW, a treatment technique violation would have occurred.

Treatment technique violations require a Tier 2 Public Notice. Public Notice templates (Tiers 1, 2 and 3) are provided in Chapter 14 of this manual.

**Appendix**

FM-C1-Attachment 1. Letter Indicating Significant Deficiencies & CAP Requirements

FM-C1-Attachment 2. Inspection Report Following Completion of Action Item

FM-C1-Attachment 3. Letter Indicating that Significant Deficiencies Corrected

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<sup>b</sup> This is the sum of leaks on the distribution system plus leaks on service lines up to customer meters plus storage tank leaks and overflows. (Leakage might not be readily quantifiable.) It would be better to ask waterworks to address “total water losses,” since this addresses apparent losses plus real losses and encourages owners to address metering inaccuracies and unauthorized use, plus real losses.

## Chapter 2 – Disinfection of Groundwater Sources

### Summary

The Groundwater Rule (GWR) was finalized in 2006 to provide increased protection against microbial pathogens in waterworks that use groundwater sources, such as a well or spring. Groundwater under the direct influence of surface water (GUDI) is not included under the GWR. Wholesale waterworks that produce groundwater and consecutive waterworks, which receive groundwater, must comply with the requirements of the GWR. This rule establishes a disinfection treatment technique, and establishes a risk-based approach to target groundwater sources that are susceptible to fecal contamination instead of requiring disinfection for all groundwater sources. Field staff must place a high priority on initiating action to resolve a treatment technique requirement. Corrective action is required for a waterworks with confirmed *Escherichia coli* (*E. coli*) contamination (i.e., fecal indicator) at its source(s) or a documented significant deficiency identified during a sanitary survey (see Chapter 1 of this manual). A GUDI re-evaluation of the source(s) may be required to ensure that 4-log inactivation of viruses alone is sufficient treatment. A waterworks using a groundwater source(s) approved for 4-log inactivation of viruses treatment will not need to comply with the GWR's triggered source water monitoring requirements.

This chapter documents ODW's policy and procedures for requiring disinfection treatment at groundwater sources and provides staff guidance in reviewing plans and specifications for issuance of a construction permit. (See also *Permit Manual*). This chapter also provides clarification to avoid potential conflicts with the Groundwater Rule (GWR) and the disinfection design requirements in the *Waterworks Regulations*. Providing 30 minutes of chlorine contact time is *no* longer required. Specific chlorine disinfection requirements will be included in the Operation Permit Conditions issued with the operation permit. (See also *Permit Manual*).

### 1. Disinfection as a Corrective Action

Disinfection is one of four potential corrective action(s) specifically recognized to address confirmed *E. coli* contamination:

- i. Correct all significant deficiencies;
- ii. Provide an alternate source(s) of water;
- iii. Eliminate the source of contamination; and
- iv. Provide treatment that reliably achieves at least 4-log (99.99%) inactivation of viruses before or at the first customer. This corrective action requires ODW review and approval before implementation.

Temporary disinfection of groundwater sources by applying shock chlorination may be considered if there is reason to suspect that recent groundwater source maintenance activity or flooding has contributed to the distribution system coliform-positive result under the Revised Total Coliform Rule (RTCR). Well disinfection procedures for groundwater systems shall be consistent with the latest update to Boil Water Advisory During Hurricanes and Other Natural Disasters: A Guide for Small Waterworks (see Appendix 4 contained therein), located at the ODW website: <[Emergency Planning Tools... Boil Water Advisories](#)>



Specific recommendations are as follows:

- The disinfection should take place before the triggered sample is collected. Refer to the advisory for proper time to take the sample. Documentation must be made to the file indicating why the sample collection was delayed. Under ordinary conditions, triggered raw water samples must be collected within 24 hours of notification of the total coliform-positive sample result.
- If a coliform-positive distribution sample is collected in the monitoring period following the original coliform-positive result and the well was disinfected previously, then no well disinfection should be allowed before collecting the triggered water sample.

Shock chlorination of the groundwater source may be considered in the appropriate situations to prevent a waterworks from being unnecessarily subject to the treatment technique requirements and corrective action requirements of the GWR. However, field staff should be aware that the potential exists for the abuse of this policy by waterworks. Repeated application of shock chlorination is not an appropriate solution to a chronic bacteriological problem.

## **2. Field Office Staff Actions**

Field office staff must act on confirmed *E. coli* contamination and significant deficiencies as follows:

### **2.1. For Confirmed Source Water *E. coli* Contamination**

Upon becoming aware of the source-water-positive sample result, i.e., *E. coli* positive, the field staff must immediately contact the waterworks to issue a Boil Water Advisory as part of a Tier 1 public notice. Phone or in-person contact satisfies the requirement for immediate notification. Within 5 business days, transmit a written follow-up notification to the waterworks; use FM-C2-Attachment 1, the treatment technique notification letter with corrective action plan (CAP) template. Field staff may generate a draft CAP for consideration by the waterworks owner. The default corrective action is requiring 4-log virus inactivation treatment of the source(s). In addition, field staff must initiate steps for a GUDI evaluation of the source(s). Concurrent with issuing FM-C2-Attachment 1, the field office shall issue a letter notifying the owner of a requirement to begin weekly source water monitoring to support a GUDI re-evaluation. See Chapter 6 of the *Sampling Manual* for more details, including the letter template.

### **2.2. Corrective Action Plan Follow-Up**

Once a CAP with explicit schedules of completion of all action items is approved, coordination between the waterworks owner and the field staff on the corrective action implementation must occur with field office staff follow-up site visits, to include:

- Tracking the completion of action items;
- Follow-up site visit(s) and related documentation;
- SDWIS tracking, including entry and updates to compliance schedules and site visit documentation.

### **3. Treatment for the 4-Log Inactivation of Viruses**

Treatment for the 4-log inactivation of viruses may be chosen by the waterworks owner as an alternative to triggered source water monitoring or it may be a prescribed corrective action by the field staff. Newly installed chlorination may represent a long-term treatment change under the LCR and lead and copper monitoring frequency should be revisited. For community (CWS) or nontransient noncommunity (NTNC) waterworks that do not currently chlorinate, lead and copper sampling (per Lead & Copper Rule) must return to the initial 6-month monitoring schedules to ensure chlorination does not adversely influence the lead or copper concentrations measured at Lead & Copper Rule sample taps. If 4-log inactivation is required as a corrective action, then completion of a GUDI re-evaluation of the source is required to determine if 4-log inactivation alone is sufficient treatment.

ODW typically approves 4-log inactivation of viruses by application of chemical disinfectants as described in this chapter. Other treatment technologies may be approved on a case-by-case basis, including UV treatment; however, designs for UV treatment are outside the scope of this chapter.

Disinfection can be accomplished by the application of chlorine. The specific chlorine compound shall be selected based on the site-specific requirements. Design, operation, and maintenance must be in accordance with the *Waterworks Regulations*.

“CT” is to be evaluated in accordance with the *Waterworks Regulations*. The District Engineer is responsible for reviewing the waterworks’ proposed treatment for compliance with the 4-log inactivation of viruses. Use the review/evaluation form given in FM-C2-Attachment 2. The virus inactivation tables show that waters with a pH between 6 and 9 provide the same inactivation capability. Groundwater sources with a history of pH greater than 9 (pH less than 6 assumes a greater inactivation rate) must be evaluated on a case-by-case basis. ODW has assumed that the minimum groundwater temperature in all geographic regions of the Commonwealth of Virginia is no colder than 50 °F (10 °C).

The minimum free chlorine residual must be determined for the waterworks as outlined in the evaluation form in FM-C2-Attachment 2. This information, along with the compliance monitoring requirements, must be transmitted to the waterworks owner by field staff using the notification letter in FM-C2-Attachment 3. The waterworks owner must be aware that physical changes to the waterworks before the entry point may alter the criteria used to determine 4-log inactivation of viruses.

For any existing or new treatment facilities, waterworks description sheets and waterworks operation permits must be amended to indicate if 4-log inactivation of viruses is provided and associated compliance monitoring requirements, if applicable (refer to the *Permit Manual* for further information). The appropriate treatment objective must also be added to SDWIS (refer to the *Data Management Manual* for further information). This will enable staff to differentiate easily between waterworks that are capable of providing 4-log inactivation of viruses, waterworks required to complete compliance monitoring for 4-log inactivation of viruses, and waterworks which are applying chlorine for other reasons.

The amended Operation Permit must be issued to the waterworks within 45 days of a determination that the existing treatment facilities are capable of achieving 4-log virus inactivation. The waterworks must begin compliance monitoring immediately upon placing the source in service.

#### **4. Alternatives to Free Chlorine Disinfection**

##### **4.1. Alternative Chemical Disinfectants**

Apart from chlorine and UV light, other chemical disinfectants may be considered on a case-by-case basis. Field staff should confer with the ODW Division of Technical Services to determine requirements. Disinfection may be accomplished by the application of chlorine (see 12VAC5-590-1000 and 1001). The specific chlorine compound must be selected on the basis of water flow rates, application rates, pH of the water, cost of equipment and chemicals, availability of the disinfectant, and reliability of feed equipment. Alternate chemicals and methods for disinfection not addressed in the *Waterworks Regulations* must be evaluated by the ODW on a case-by-case basis, and the provisions of 12VAC5-590-290 (i.e., temporary permits for new or nonconventional water treatment methods, processes, and equipment) may apply.

##### **4.2. UV Light Disinfection**

A properly designed and sized UV disinfection unit process is an acceptable technology to provide disinfection for groundwater sources. Refer to 12VAC5-590-1005 for UV disinfection unit process design requirements. When the waterworks is required to provide adequate disinfection for a groundwater source (see Section 5), the UV disinfection unit shall be designed to achieve at least a 4-log inactivation of virus (this requires a UV unit designed to deliver a germicidal UV dose of at least 186 mJ/cm<sup>2</sup> under all operating conditions). See 12VAC5-590-1005 H for required third-party validation requirements.

There are instances where ODW staff encounters “found” waterworks where a UV disinfection unit was previously installed. These UV units will likely not be sized to provide 4-log virus inactivation. These UV units may be allowed to remain in service without modification unless monitoring results trigger the waterworks to be required to provide adequate disinfection. In this case, the owner is required to provide a disinfection technology to achieve the 4-log virus inactivation.

For situations where an owner voluntarily chooses to install a UV disinfection unit as a precautionary measure, the UV unit will not be required to achieve a 4-log inactivation of virus but must be NSF certified.

UV disinfection design requirements for a groundwater source meeting the special circumstance in 12VAC5-590-380 G 2 (i.e., any source with total coliform geometric mean equal to or greater than 100 colonies/100 mL based upon a minimum of 20 samples is not acceptable for single barrier disinfection treatment alone):

- In most situations, a groundwater source meeting this special circumstance must be provided with a chlorine disinfection unit process designed to provide 4-log inactivation of virus.
- One option to provide an additional disinfection barrier is for the owner to install a UV disinfection unit following the chlorine disinfection treatment. Where an owner proposes to utilize UV for the second disinfection barrier, the UV unit is NOT required to provide 4-log virus inactivation. In this situation, the UV unit must meet NSF 55 Class A requirements.

There will be situations where a waterworks utilizing UV disinfection will be required to maintain a detectable distribution system chlorine residual to provide a safeguard against contamination. For these situations, there is no requirement to provide chlorine contact time.

- The District Engineer is responsible for determining where a distribution system chlorine residual is required.
- In general, a distribution system chlorine residual is not necessary for very small waterworks. Examples include transient noncommunity (TNC) waterworks such as restaurants or highway rest areas, waterworks with single buildings and direct delivery systems, or NTNC's such as small daycare facilities.
- Any waterworks with an extensive distribution system is required to maintain a distribution system chlorine residual.

Waterworks owners who install UV disinfection treatment (either voluntarily or required) shall comply with the raw water monitoring requirements (see 12VAC5-590-379 C and 12VAC5-590-380 G).

### **5. Providing Adequate Disinfection**

The *Waterworks Regulations* require waterworks owners with groundwater sources to provide adequate disinfection under the following circumstances:

- When monitoring results indicate groundwater sources that have a total coliform geometric mean greater than 3 colonies/100 mL but less than 100 colonies/100 mL (12VAC5-590-380 G). This is based on at least a 20-sample most probable number (MPN) series collected during a well yield and drawdown test (developmental samples) or resulting from the routine source water monitoring required in 12VAC5-590-379 and 12VAC5-590-380.
- When monitoring results indicate groundwater sources with a confirmed fecal indicator, *E. coli* (12VAC5-590-421 A 1 d). This is based upon GWR requirements discussed previously in this chapter.
- When groundwater sources have raw water samples collected per 12VAC5-590-430 indicating the presence of total coliform or *E. coli* (see 12VAC5-590-430 B 2) triggering a Step 3 evaluation per 12VAC5-590-430 B 3. Owners must provide 4 LIV treatment as an interim measure per 12VAC5-590-430 C for sources that remain in service during Step 3 evaluation.

- When groundwater sources with routine source water monitoring results indicate the presence of *E. coli* in two or more samples during any running six-month period (12VAC5-590-380 G 4).
- All spring sources (12VAC5-590-840 T 4).
- When the source water quality is determined to contribute to the waterworks' failure to meet the *E. coli* Primary Maximum Contaminant Level (PMCL) (12VAC5-590-380 G 3).
- When the owner is notified of a significant deficiency as described in 12VAC5-590-350 D and does not (i) correct the significant deficiency, (ii) provide an alternate source of water, or (iii) eliminate the source of contamination as described in 12VAC5-590-421 A 1.

When the need for adequate disinfection is established, field staff should use FM-C2-Attachment 1 to convey this treatment technique requirement to the waterworks owner.

### **6. Design Requirements for Disinfection**

The *Waterworks Regulations* contain requirements for disinfection in separate locations. These include the groundwater system treatment techniques (4-log inactivation of viruses or 4-LIV) (12VAC5-590-421), and design requirements for disinfection, chlorination, ozonation, and UV disinfection (12VAC5-590-1000 through 1005) for waterworks that are required to disinfect or provide optional disinfection:

- 12VAC5-590-421: Requires disinfection treatment to provide at least 4-log inactivation of viruses. Required chlorine contact is based upon calculations to include an appropriate baffling factor, described in the *Waterworks Regulations*, minimum maintained free chlorine residual, pH, and water temperature. In addition, compliance monitoring is required consisting of daily chlorine residual monitoring for each day the source is utilized or providing online continuous monitoring equipment depending on the population served.
- 12VAC5-590-1001: Contains general design requirements for chlorination for primary disinfection at waterworks using groundwater sources. Requires sufficient capacity of chlorine feed systems to achieve 4-log inactivation of viruses.

### **7. Secondary Disinfection**

Secondary disinfection is defined in the *Waterworks Regulations* and means disinfection by chemical oxidants or equivalent agents applied at the entry point or in the distribution system to provide a residual disinfectant in water to maintain water quality and safeguard against chance contamination from permeation, leaching, intrusion, regrowth, or biofilms. In the past, ODW field offices have required chlorine feed systems to be installed to resolve total coliform PMCL violations without any dedicated chlorine contact time (i.e., required secondary disinfection). The reason for this action was that certain coliform PMCL violations were determined to be distribution system-related, and not as a result of source water quality.

Under the Revised Total Coliform Rule (RTCR), total coliform no longer has a PMCL and the *E.coli* PMCL now defines the bacteriological drinking water standard. The current regulations, since the adoption of the RTCR, now require installation of 4-LIV treatment when a requirement

for disinfection is triggered. In the event of multiple assessments where no plausible “find-and-fix” solutions are discovered, and the ODW has determined that the source water quality is not contributing to the Level 1 or Level 2 assessment requirements under 12VAC5-590-392, the waterworks owner may choose a temporary or permanent means for “secondary disinfection” for consideration and approval by field staff as a viable corrective measure.

ODW field office staff should recommend permanent secondary disinfection under the following conditions:

- No plausible “find-and-fix” problems or solutions are found with repeated Level 1 or Level 2 assessments;
- The ODW has determined that the source water quality does not require disinfection treatment per 12VAC5-590-380 G; and
- More than one or repeated source water samples indicate total coliform positive samples with *E. coli* negative.

An owner may voluntarily choose to install a chlorine feed system when there is no water quality issue – either at the source or in the distribution system that would require disinfection. In this situation, chlorine contact time is not necessary as ODW is not requiring disinfection.

## **8. Disinfection Policy for Groundwater Sources**

### **8.1. Design When Adequate Disinfection is Required**

For all situations when a waterworks owner is required to provide adequate disinfection for a groundwater source(s), the chlorine disinfection unit process must be designed as follows: The disinfection treatment can consist of a disinfectant (typically free chlorine) concentration (C) and contact time (T) to achieve at least a 4-log inactivation of viruses. The necessary chlorine contact volume must be calculated using an appropriate baffling factor from Table 500.15 in the *Regulations* to yield a  $T_{10}^c$  based upon the peak hour flow rate or determined by tracer study. The disinfection treatment process must be designed and evaluated in accordance with the requirements contained in the *Permit Manual* and 12VAC5-590-421 of the *Waterworks Regulations*. Disinfection by UV to meet at least a 4-log inactivation of viruses is allowed under 12VAC5-590-1005.

### **8.2. Waterworks Permit Requirements**

For all situations where a groundwater source(s) is required to disinfect based upon the confirmed presence of *E. coli* described in Section 5, the Waterworks Operation Permit must include Operation Permit Conditions that specify the minimum free chlorine residual that must be maintained and the operational control monitoring requirements, referred to as “compliance monitoring”.

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<sup>c</sup>  $T_{10}$  refers to the effective contact time, which is the time it takes 10% of the volume of a unit to pass through that unit and T is referred to as theoretical detention time.

The waterworks description sheet shall specify the treatment provided (4-LIV required, 4-LIV capable, optional disinfection, secondary disinfection, etc.).

### **8.3. Disinfection Applied for Coliform Control in Distribution System**

For existing waterworks where chlorine disinfection is applied based upon total coliform-positive occurrences that are not related to source water quality, the disinfection treatment may be designed and approved without meeting the CT requirements, if the waterworks owner on a voluntary basis observes the following:

- Maintains a free chlorine residual at the entry point to the distribution system of at least 0.2 mg/L monitored weekly, and
- Maintains a detectable free chlorine residual throughout the distribution system, and
- Conducts source water monitoring per the requirements of 12VAC5-590-379.

## **9. Compliance Monitoring Requirements**

### **9.1. Waterworks Not Providing 4-Log Inactivation of Viruses**

The District Engineer will determine the frequency of disinfectant residual monitoring for all situations listed in Section 5.0, except for confirmed *E. coli* contamination; e.g., chlorine disinfection provided voluntarily by the owner to address total coliform detections in the distribution system. Minimum requirements for monitoring and reporting are contained in the *Waterworks Regulations*, sections 12VAC5-590-379 and 12VAC5-590-530, respectively.

At a minimum, chlorine residual monitoring within the distribution system must be in accordance with 12VAC5-590-374 I 1 a of the *Waterworks Regulations*. This subsection requires that chlorine residuals be monitored “*at the same point in the distribution system and at the same time as total coliform bacteria are sampled....*” (Emphasis added.) For situations where disinfection is required based upon total coliform occurrences that are not related to source water quality and no chlorine contact time is provided, the District Engineer may require an increased frequency of chlorine residual monitoring.

For situations where the source water quality requires disinfection (e.g., geometric mean of greater than 3), then frequent monitoring of the source becomes necessary to ensure that a minimum residual of at least 0.2 mg/L is achieved at all times in the distribution system.

### **9.2. Waterworks Providing 4-Log Inactivation of Viruses**

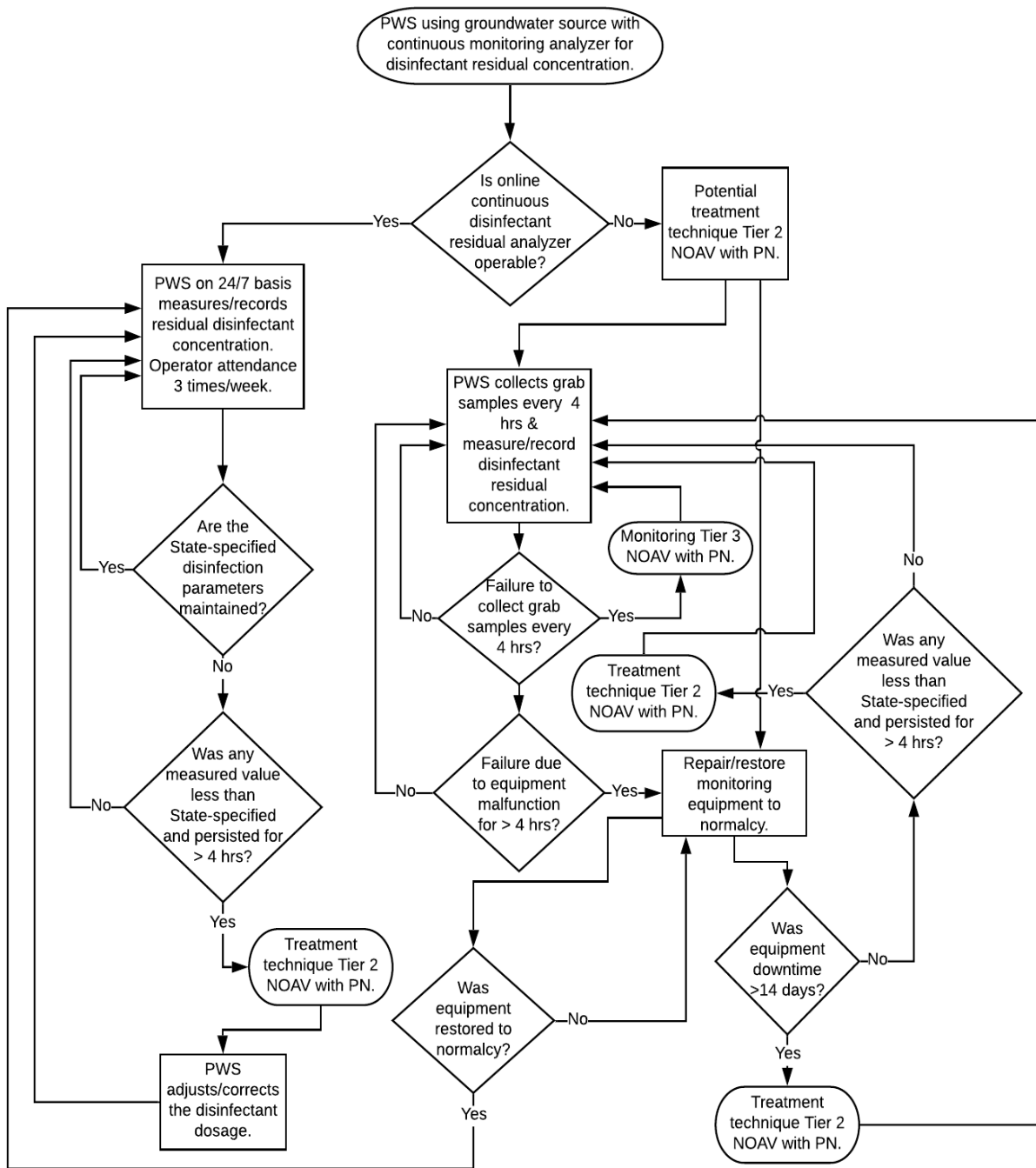
Waterworks providing 4-log inactivation of viruses using chlorine as required by ODW, or as an option to avoid triggered source water monitoring, must monitor for and ensure the ODW-determined minimum free chlorine residual concentration is continuously maintained. No routine monitoring of temperature or pH is necessary unless alternate criteria (i.e., temperature other than 10° C and pH of 6-9) were used in the 4-log inactivation evaluation. Waterworks owners are required to conduct chlorine residual monitoring at the following locations and frequencies:

Entry Point (located following all treatment and chlorine contact time, if required, but before the distribution system): when the disinfection is required based upon confirmed *E. coli* contamination in the source water, the GWR compliance monitoring requirements will apply. These requirements can be either daily chlorine residual monitoring (see Flow Chart 1) or continuous monitoring using installed online continuous monitoring equipment (see Flow Chart 2).

Flow Chart 1 outlines the daily compliance monitoring and inter-relationships for waterworks serving a population  $\leq 3,300$  with 4-log inactivation of virus required.

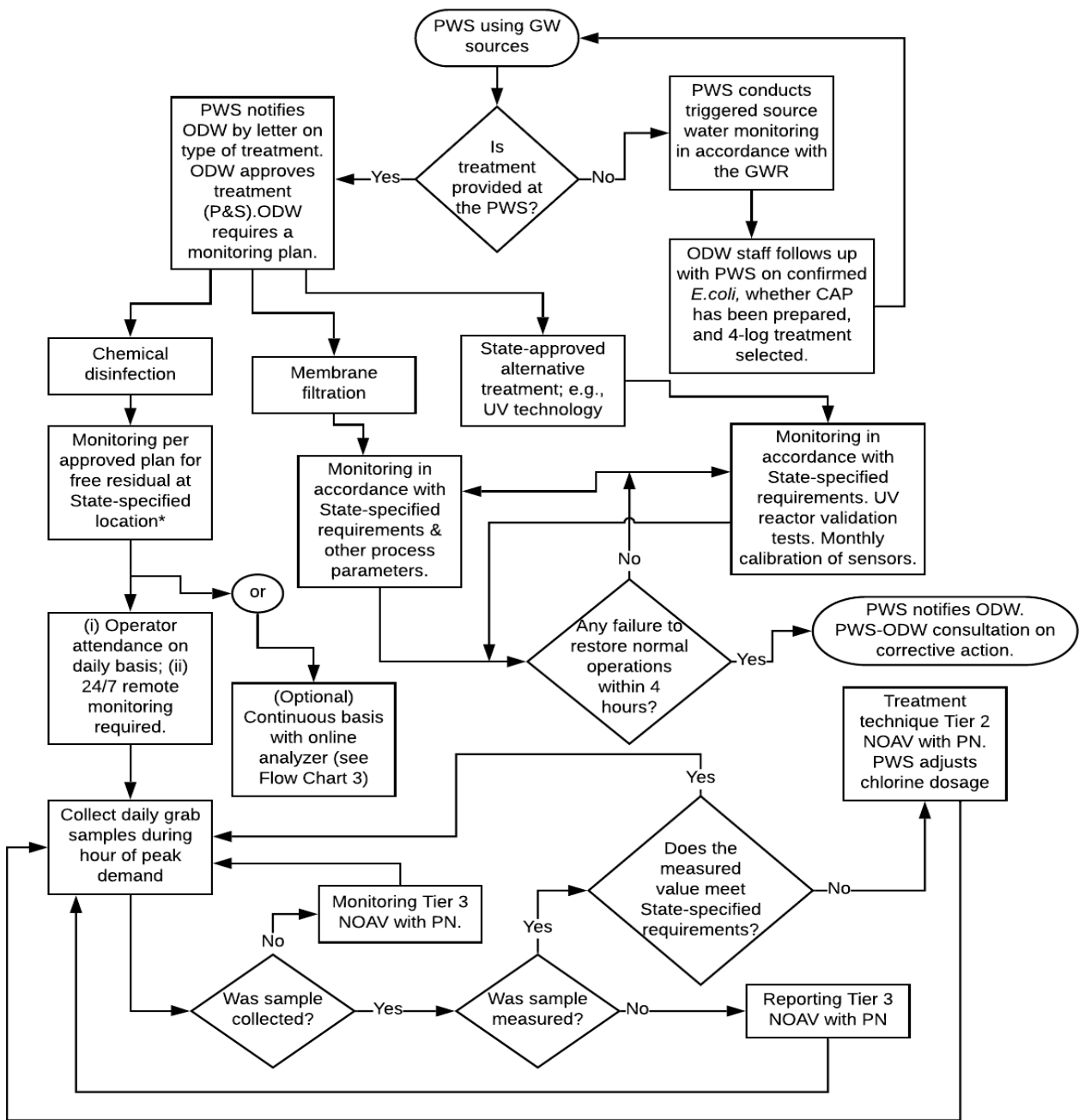
Flow Chart 2 provides the information for waterworks serving  $> 3,300$  population and 4-log virus inactivation required. Additional details are provided in section 12VAC5-590-421 C of the *Waterworks Regulations*.





**Legend:**  
 PWS=Public water system; NOAV=Notice of alleged violation; PN=Public notice.

*Flow Chart 1. Daily Compliance Monitoring at a Waterworks Serving a Population ≤ 3,300.*



**Legend:**  
 PWS=Public water system; GW=Groundwater; ODW=Office of Drinking Water; GWR=Groundwater Rule; CAP=Corrective action plan; UV=Ultraviolet; NOAV=Notice of alleged violation; PN=Public notice.  
 \*=At or before 1st customer.

*Flow Chart 2. Continuous Compliance Monitoring for a Waterworks Serving a Population > 3,300.*

### **9.3. Monitoring at Waterworks Serving $\leq 3,300$ Population**

The free chlorine residual must be determined once a day at an approved location (i.e., a location stated in the ODW document informing the waterworks of monthly reporting requirements or in the waterworks chlorine residual monitoring plan). If the chlorinator feeds into a line with relatively constant flow (e.g., well pump discharge), then monitoring anytime when the pump is running is adequate. In the event that the chlorination is paced to widely variable flow (e.g., pressure tank or booster pump discharge), the timing of the sample collection should coincide with the peak demand.

*Note:* Such waterworks may elect to provide continuous monitoring (rather than daily monitoring) to satisfy this requirement; however, daily attendance or remote monitoring (described below) is still required.

### **9.4. Monitoring at a Waterworks Serving a Population $> 3,300$**

The free chlorine residual must be monitored and recorded continuously at the approved location (i.e., a location stated in the ODW document informing the waterworks of monthly reporting requirements or in the waterworks chlorine residual monitoring plan). Continuous online analyzers are those that analyze on a frequency of less than 15 minutes. The waterworks must report the lowest residual detected on each day. Instruments used for continuous monitoring must be verified per EPA Method 334.0 with a grab sample measurement at least every five days and calibrated if the grab sample and continuous instrument deviate by more than  $\pm 0.1$  mg/L or  $\pm 15\%$ . The verification and calibration samples shall be maintained in a separate log for review by field staff during routine sanitary surveys.

*Note:* Waterworks that provide a continuous online analyzer and provide a means of remote monitoring 24 hours per day at 7 days per week may visit the site three times per week instead of daily attendance.

### **9.5. Failure to Maintain Free Chlorine Residual**

In the event that a waterworks either does not maintain the ODW-specified minimum free chlorine residual or has inoperable continuous monitoring equipment, then the waterworks must collect free chlorine residual samples every 4 hours until sufficient free chlorine residual is verified or continuous monitoring equipment is returned to service. In the event of insufficient free chlorine residual for more than 4 hours, the waterworks must be cited for a treatment technique (SDWIS violation code 41, Tier 2) violation with public notice.

### **9.6. Continuous Monitoring Equipment Failure**

If continuous monitoring or recording equipment fails, then the waterworks must collect free chlorine residual grab samples every 4 hours until the equipment is returned to service. Malfunctioning or failed continuous monitoring or recording equipment must be returned to

service within 14 days. Exceeding the 14-day limit is a treatment technique (Tier 2) violation with public notice.

### **9.7. Discontinuing Treatment or Compliance Monitoring**

A waterworks that has chosen to provide 4-log inactivation of viruses to avoid triggered source water monitoring in accordance with the GWR may request to cease providing this treatment. The waterworks may cease 4-log inactivation treatment or compliance monitoring upon written approval by the Field Director.

- A request to cease 4-log virus inactivation treatment may be granted if the source was evaluated and substantially shows through documentation that a disinfection treatment is not required.
- A request to cease compliance monitoring may be granted as long as the waterworks agrees to conduct triggered source water monitoring.
- Sources that were required to install 4-log virus inactivation treatment (i.e., required to meet the 4-log treatment technique) may not discontinue treatment or compliance monitoring.

### **10. Additional Monitoring Requirements**

Waterworks owners who have installed disinfection treatment (either voluntarily or as required) must comply with the monitoring requirements for disinfection byproducts (12VAC5-590-374 B) and raw water monitoring requirements (12VAC5-590-379). (See Chapter 7 of the *Sampling Manual* for guidance).

### **11. Waterworks Surveillance**

Field staff must provide oversight of those waterworks utilizing groundwater and employing 4-log virus inactivation treatment by disinfection. There are five areas of interest:

#### **11.1. Monthly Operation Reports (MORs)**

Waterworks providing 4-log inactivation of virus treatment must document daily virus inactivation in the MORs for submission to the field office. Documentation of compliance monitoring must include, at a minimum, the daily lowest free chlorine residual concentration. ODW considers groundwater pH and temperature to be seasonally consistent and the same each day within the following parameters: pH range 6 to 9; temperature  $\geq 50$  °F. Therefore, monthly reporting of pH and temperature will not be required, unless alternate criteria were specified in ODW's 4-log inactivation approval letter or as specified in the Operations Permit conditions.

#### **11.2. Chlorination Equipment Malfunctions**

The waterworks must notify ODW as soon as possible but no later than the end of the next business day of any failure to provide continuous chlorination or of a failure of the analyzer or the recording equipment. In the event of a recording equipment failure, the waterworks must record the chlorine residual as specified in Section 9.6 of this chapter.

### 11.3. Public Notification

When there is a failure to comply with the disinfection requirements of groundwater sources (in accordance with the GWR), the field staff must tell the waterworks to perform timely public notification (PN) depending on the issue under consideration. Table 1 summarizes the potential issues and the associated PN requirements that may be associated with groundwater disinfection.

### 11.4. Compliance Determination and CCR Reporting

Table 1 provides guidance to field staff in assessing compliance with the activities associated with the disinfection requirements of groundwater sources. Treatment technique and monitoring violations are of specific concern. Such violations must be reported in the Consumer Confidence Reports (CCR) where applicable (see Chapter 11 of this manual).

<b>Table 1. Potential Issues and Notification Requirements Associated with Disinfection of Groundwater Sources.</b>	
<b>Issue</b>	<b>Notification Required</b>
Failure to install 4-log inactivation treatment of viruses @ CWS	Tier 2 public notice, CCR
Failure to install 4-log inactivation treatment of viruses @ NTNC & TNC	Tier 2 public notice
Failure to maintain 4-log inactivation treatment of viruses <sup>1</sup> @ CWS	Tier 2 public notice, CCR
Failure to maintain 4-log inactivation treatment of viruses <sup>1</sup> @ NTNC & TNC	Tier 2 public notice
Failure to meet monitoring requirements <sup>2</sup> @ CWS	Tier 3 public notice, CCR
Failure to meet monitoring requirements <sup>2</sup> @ NTNC & TNC	Tier 3 public notice

1. Includes failure to maintain continuous disinfection for a period > 4 hours, and malfunctioned continuous chlorine residual monitoring or recording equipment used to confirm 4-log virus inactivation is not returned to service within 14 days.

2. Includes failure to conduct compliance monitoring as shown in the examples below:

*Example A:* waterworks serving ≤ 3,300 population fails to determine one or more daily free chlorine residuals at the approved location to verify 4- log virus inactivation.

*Example B:* waterworks serving > 3,300 population fails to determine one or more of the “every 4 hour” free chlorine residuals when continuous chlorine residual monitoring or recording equipment malfunctions.

### 11.5. SDWIS Data Entry

A waterworks that utilizes groundwater disinfection will require tracking and logging of various data elements of its operations in SDWIS to provide state records and optimize efficiency of the various ODW tasks. See the *ODW SDWIS Manual* and the *Data Management Manual* for detailed data entry instructions.

#### **Appendix**

FM-C2-Attachment 1. Letter Indicating Treatment Technique Requirement with PN

FM-C2-Attachment 2. Evaluation Form for 4-log Inactivation of Viruses

FM-C2-Attachment 3. Letter on Acceptance of 4-log Inactivation of Viruses

## Chapter 3 – Disinfection of Surface Water Sources

### Summary

The Surface Water Treatment Rule (SWTR) and its related subsequent rules (i.e., Interim Enhanced Surface Water Treatment Rule (IESWTR), Long Term 1 Enhanced Surface Water Treatment Rule (LT1), and Long Term 2 Enhanced Surface Water Treatment Rule (LT2)) collectively require treatment techniques instead of water quality testing because they regulate contaminants that are difficult to detect or analyze and pose acute health risks. These microbial contaminants include viruses, *Giardia lamblia*, *Cryptosporidium*, and *Legionella*. Under these rules (collectively referred to as SWTRs), the disinfection and filtration treatment techniques (TT) are the principal required treatment at waterworks using either surface water or groundwater under the direct influence (GUDI) of surface water, or both. The original SWTR allows some surface water waterworks to avoid the filtration requirement, but the Virginia Department of Health, Office of Drinking Water (VDH-ODW) does not allow this practice. Table 1 outlines the disinfection and filtration treatment technique requirements.

<b>Table 1. Filtered Waterworks Criteria.</b>	
<b>Criterion</b>	<b>Standard</b>
Turbidity <sup>1</sup>	< 1 NTU at all times
	< 0.3 NTU in at least 95% of samples each month
Filtration and Disinfection <sup>2</sup>	
➤ <i>Cryptosporidium</i>	99% effective (2-log removal) <sup>3</sup>
➤ <i>Giardia lamblia</i>	99.9% effective (3-log removal/inactivation)
➤ Viruses	99.99% effective (4-log removal/inactivation)
➤ Disinfectant Residual	≥ 0.2 mg/L (minimum) at entrance to distribution system

1. Compliance with the filtration treatment technique is measured at the combined filter effluent (CFE). Standards are for conventional and direct filtration.

2. Disinfection must be sufficient to ensure that the total treatment process (i.e., filtration + disinfection) achieves at least the log removals noted in the table.

3. Minimum of 2-log removal of *Cryptosporidium* is required. The LT2 Rule can increase this requirement based on the source water quality and assigned Bin.

The SWTRs require all waterworks using either surface water or GUDI sources, or both, to develop a disinfection profile and calculate the benchmark by which to conduct the water treatment operations. The purpose of the disinfection profile and benchmark requirement is to establish a baseline to help assess the impact of future proposed changes to disinfection on microbial risk. A disinfection profile is a summary of daily microbial inactivation, through the entire water treatment plant (WTP). The methodology is described in EPA's *Disinfection Profiling and Benchmarking Guidance Manual*, dated August 1999 and *LT1ESWTR Disinfection Profiling and Benchmarking Technical Guidance Manual*, dated May 2003. The benchmark is found by reviewing the microbial inactivation results from the disinfection profile. When a waterworks proposes a significant change to the WTP's disinfection practice, they must evaluate the change against their benchmark to ensure they are still providing adequate disinfection. A virus benchmark is required for all systems making significant changes to disinfection.

## **1. Background**

The original SWTR (June 29, 1989) did not formally require a disinfection profile, but did require each surface WTP utilizing conventional filtration or direct filtration to be analyzed to ensure that the plant achieves 3-log removal/inactivation of *Giardia lamblia* and 4-log removal/inactivation of viruses. Properly operated conventional treatment facilities were credited with 2.5-logs of removal/inactivation of *Giardia lamblia*, meaning that the disinfection process needed to achieve the remaining 0.5-logs of *Giardia lamblia* removal/inactivation before the first customer. VDH field staff performed the analyses, utilizing a process similar to that described below for the IESWTR and LT1, i.e., review of plant data for a period of at least 12 months, including pumping rates, water levels in tanks and unit processes, water pH, temperature, and chlorine disinfection residuals. At that time, all surface WTPs in Virginia were using free chlorine for disinfection. Following that analysis, VDH established for each surface WTP a set of operating conditions that would ensure that the plant continuously met the 0.5-log removal/inactivation requirement. These were based on the “CT” tables contained in EPA’s *Surface Water Treatment Rule Guidance Manual* (March 1991). *Note:* It was determined that meeting the 0.5-log removal/inactivation requirement for *Giardia lamblia* would also result in meeting the 4-log removal/inactivation requirement for viruses. In effect, this set of operating conditions became a 0.5-log *Giardia lamblia* disinfection benchmark.

The IESWTR and LT1 required all waterworks using conventional filtration or direct filtration to treat surface water or GUDI sources to complete a disinfection profile, if their disinfection byproducts were  $\geq 80\%$  PMCL (TTHM  $\geq 0.064$  mg/L or HAA5  $\geq 0.048$  mg/L). The LT2 requires all waterworks to develop a disinfection profile after completing the first round of cryptosporidium monitoring, if they are proposing a significant change to their disinfection practices. The two rounds of cryptosporidium monitoring under the LT2 would require determining if additional treatment is needed to achieve the prescribed “log removals”. (See Chapter 8 of the *Sampling Manual* for additional guidance.)

## **2. Developing the Disinfection Profile**

The disinfection profile required by one of the SWTRs noted above must be compiled in spreadsheet format, and presented in graphical form (see also 12VAC5-590-500). A spreadsheet calculator that can be used by the waterworks to develop a disinfection profile for a conventional surface WTP has been developed for this purpose; a copy is available in:

[O:\odwsrv1\06-Technical Resources\650-Calculators\CT-Utah\(Disinfect Profile\).xls](file:///O:\odwsrv1\06-Technical Resources\650-Calculators\CT-Utah(Disinfect Profile).xls)

Waterworks are required to submit, as part of their Monthly Operation Report (MOR), sufficient data for VDH to determine that the plant continues to meet the *Giardia lamblia* and virus disinfection requirements (i.e., demonstrate that the waterworks meets the required 0.5-log *Giardia lamblia* and 4.0-log virus inactivation requirement on each day that the plant is in operation). The minimum reporting data were established in the ODW’s standard MOR templates created for surface and membrane WTPs. If the field office must comment on MORs, field staff may use FM-C3-Attachment 1 to convey the requirements to the waterworks owner/operator.

Waterworks required to develop a disinfection profile must compute the disinfection achieved in each segment of the WTP daily, using parameters measured at peak hourly flow (for chemical

disinfectants such as chlorine, this would be pH, temperature, and disinfectant residual). A disinfection segment consists of one disinfectant addition point, contact tank or tanks, and one disinfectant residual monitoring point. The number of points monitored will depend on the number of disinfection segments in the treatment plant.

The waterworks must develop the disinfection profile over a period of at least 12 months. The waterworks will use this data to calculate the required microbial inactivation benchmark for the WTP. Under the IESWTR and LT1, WTPs using free chlorine as a primary disinfectant established a benchmark only for *Giardia lamblia*. WTPs using either chloramines or ozone as the primary disinfectant were required to establish benchmarks for both *Giardia lamblia* and viruses. EPA recommended that WTPs using chlorine dioxide as the primary disinfectant establish benchmarks for both *Giardia lamblia* and viruses.

If the waterworks has *not* made a significant change to its treatment process and has not changed sources since developing a disinfection profile under IESTWR or LT1, then the waterworks may use the existing disinfection profile instead of developing a new profile. If the waterworks uses the existing profile, there are two options for providing the required benchmark for virus:

- If the original profile provided a benchmark for virus, it is used.
- If the original profile did not provide a benchmark for virus, the original data are used to calculate a virus benchmark.

Waterworks may use existing data to develop disinfection profiles if they have at least one year of data that is substantially equivalent to that required for developing a disinfection profile, and during the data period there were no significant treatment changes nor changes to raw water sources.

### **3. Initial Disinfection Benchmark**

If a waterworks is proposing a change to the WTP's disinfection practice, it must calculate its benchmark for *Giardia lamblia* and virus inactivation under the LT2. The benchmark is the lowest monthly average value (for waterworks with one year of profiling data) or average of lowest monthly average values (for waterworks with more than one year of profiling data) of the monthly logs of inactivation in each year of profiling data.

### **4. Significant Changes to Disinfection**

Any waterworks using conventional filtration or direct filtration (including membrane filtration processes that meet the definitions of conventional or direct filtration) to treat either surface water or GUDI sources, or both, which proposes significant changes to their disinfection practices after completion of initial source water monitoring (required by the LT2), must develop disinfection profiles and calculate disinfection benchmarks for *Giardia lamblia* and viruses. Significant changes to disinfection practice are:

- Changes to the point(s) of disinfection;
- Changes to the disinfectant(s) used in the treatment plant;
- Changes to the disinfection process; or



- Any other modification identified by the State as a significant change to disinfection practice.

The waterworks must submit the following information to the ODW field office before making any disinfection change, as part of its consultation process:

- A description of the proposed change;
- The disinfection profile for *Giardia lamblia* and viruses, and benchmark; and
- An analysis of how the proposed change will affect the current levels of disinfection.

### **5. Changes to Disinfection Benchmark**

According to the EPA's *Disinfection Profiling and Benchmarking Guidance Manual*, waterworks should calculate "modification benchmarks," based on the current operating conditions before the process change is made. These modification benchmarks should be compared to the original benchmark to evaluate the expected inactivation level of the modified disinfection practice.

The steps to calculate these modification benchmarks, described in the *Disinfection Profiling and Benchmarking Guidance Manual*, are as follows:

- Identify the lowest average months from the original profile (i.e., the one to three months that were averaged to calculate the original benchmark).
- Using the temperature, pH, and contact times (unless the modification significantly changes these values) from the original profile calculations, systems calculate the daily log inactivation for *Giardia lamblia* (or viruses) for each day of the month under the proposed modification (i.e., for conditions after the modification is complete). The waterworks will need to assume reasonable values for the disinfectant residuals. It may also need to calculate or estimate contact times, or identify new points of disinfectant residual sampling to reflect the modification.
- Calculate the average log *Giardia lamblia* or virus inactivation for the months identified in the first arrowhead above.
- Calculate the average of the monthly values. This value is the modification benchmark. Compare the original benchmarks to the modification benchmarks:
  - If the modification benchmarks are greater than the original benchmarks, the modification will likely be acceptable to ODW.
  - If the modification benchmarks are lower than the original benchmarks but meet regulatory requirements, ODW should carefully review whether the resulting increase in microbial risk is justified by other factors including source water quality and watershed conditions. (Chapter 6 of the *Disinfection Profiling and Benchmarking Guidance Manual* covers this topic in detail.)
  - If the modification benchmarks do not meet regulatory requirements, the modifications will likely NOT be acceptable to ODW.

The waterworks should discuss the reasons for any modification and whether better options exist, and assess the modification's impact on log inactivation. ODW and the waterworks should

jointly assess the impact that the proposed modification will have on log inactivation levels of *Giardia lamblia* or viruses.

A formal approval must be provided in a manner consistent with current policies and procedures (see *Permit Manual*). Those waterworks required to complete the disinfection profile and establish a benchmark are to keep this data on file until it is needed to consult with ODW about a change in disinfection practices.

**6. Surveillance of Disinfection Performance**

Because of the acute and serious health effects associated with poor disinfection of surface waters, it is imperative that the surface WTPs consistently achieve the required level of disinfection and that ODW checks the disinfection performance of each surface WTP. In addition to obtaining CT credit as a measure of the log removals from tabular data, waterworks must also comply with the maximum residual disinfectant level (MRDL) and maximum contaminant level (MCL) requirements specified in the Stage 1 & 2 Disinfectants and Disinfection Byproducts Rules (DBPRs) and described elsewhere in the *Field Operations Manual*. Table 2 outlines typical disinfection parameters that the waterworks operator monitors and reports through MORs.

<b>Table 2. Residual Disinfectant Monitoring at All Surface Water Waterworks</b>			
<b>Location of Sampling</b>	<b>Observed Value of Parameter</b>	<b>Monitoring Frequency<sup>1</sup></b>	<b>Reporting<sup>2</sup> by Waterworks</b>
Entry point to the distribution system.	Residual disinfectant concentration: <ul style="list-style-type: none"> <li>Cannot be &lt; 0.2 mg/L for more than 4 hours.</li> </ul>	Based on population size. <ul style="list-style-type: none"> <li>≤3,300 - daily</li> <li>&gt;3,300 - continuous</li> </ul>	<ul style="list-style-type: none"> <li>Lowest daily value</li> <li>Date and duration when residual was &lt; 0.2 mg/L</li> <li>Date when ODW field office was notified of events where residual disinfectant was &lt; 0.2 mg/L.</li> </ul>
Distribution system (same as the sample sites in the approved Bacteriological Sample Siting Plan (BSSP), in accordance with the Revised Total Coliform Rule (RTCR).	<ul style="list-style-type: none"> <li>Residual disinfectant concentration cannot be undetectable in &gt; 5% of monthly samples for any 2 consecutive months.</li> <li>No more than 5% of residual disinfectant or HPC measurements<sup>3</sup> can be undetectable in any 2 consecutive months.</li> </ul>	Collected at the same time as total coliform samples in the approved BSSP in accordance with the RTCR.	<ul style="list-style-type: none"> <li>Report distribution chlorine residuals along with the Revised Total Coliform Rule sample results.</li> <li>Report HPC measurements and calculations in the WTP MOR.</li> </ul>

1. A waterworks serving ≤ 3,300 population has the option to monitor continuously instead of the required daily monitoring.

2. Must be reported by monthly operations reports (MORs) due to the field office by the 10<sup>th</sup> of the following month.

3. Heterotrophic plate count (HPC) ≤ 500/mL is deemed to have a detectable residual disinfectant. When HPC is greater than 500/mL, residual disinfectant is deemed undetectable.

**7. Licensed Waterworks Operator Requirement**

The disinfection and filtration treatment techniques in Section 12VAC5-590-395 of the *Waterworks Regulations* require operation of each waterworks, using either surface water or a

GUDI source, or both, by licensed operators of the appropriate waterworks classification. Failure to meet this requirement is a violation of the disinfection treatment technique.

**Appendix**

FM-C3-Attachment 1. Monthly Operations Report (MOR) Comment Letter.

## Chapter 4 – Virginia’s Optimization Program (VOP)

### **Background**

Virginia’s Optimization Program (VOP) has its origins from the Area-Wide Optimization Program (AWOP) developed by the EPA for its 10 regions to provide tools and approaches for drinking water systems to meet water quality optimization goals and provide an increased and sustainable level of public health protection to their customers. For more detail, see <https://www.epa.gov/sdwa/optimization-program-drinking-water-systems>. AWOP is a multi-state effort in which states and the EPA work together to develop and implement individual state programs to optimize the quality of the drinking water provided in each participating state. The initial focus of the AWOP was optimization to achieve turbidity (particulate) removal goals at conventional surface water treatment plants (SWTPs) utilizing gravity flow and granular filter media in an effort to increase public health protection. While originally developed to address microbial contaminants, the AWOP was expanded to address disinfection, disinfection byproduct control, total organic carbon removal, data integrity, and distribution systems. The optimization goals are more stringent than the regulations (i.e., *Waterworks Regulations*) and state participation in the AWOP is voluntary.

The ODW participated in the EPA Region 3 AWOP which initially included Delaware, Maryland, Pennsylvania, West Virginia, and The District of Columbia. As of January 2022, the participants in Region 3 AWOP include: Connecticut, Massachusetts, Maryland, Michigan, New Jersey, Pennsylvania, Virginia, West Virginia, EPA Regions 1, 2, and 3, and the EPA Technical Services Center in Cincinnati.

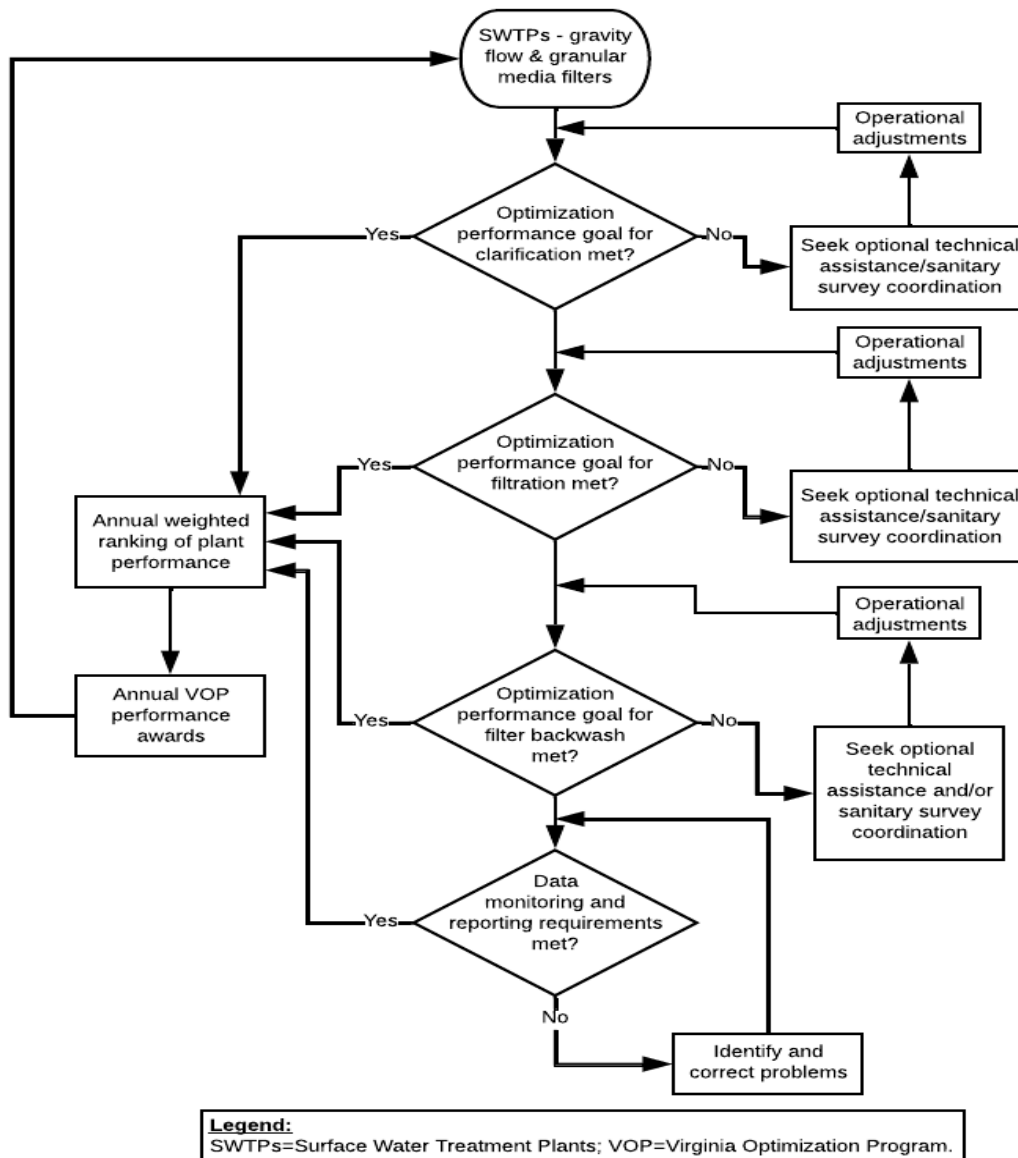
Realizing the many benefits that the program provides, six EPA Regions currently implement multi-state (“Area Wide”) optimization programs, with individual and in grouped regional approaches; i.e., Region 3, Region 4, Region 6/7, and Region 8/10.

The purpose of this chapter is to provide information to waterworks owners and operators of SWTPs in Virginia, as well as informational access to the public about the VOP program, and to provide guidance to the field staff on matters of implementation of the VOP program. It establishes the performance goals for SWTPs in Virginia, provides uniform monitoring and reporting requirements for surface water treatment, and optimization performance criteria that engenders and promotes a positive, award-based awareness among the SWTPs. The VOP encourages a standard of performance that exceeds regulatory requirements and better protects public health. This chapter will be modified in the future as the program expands.

### **1. Purpose and Scope of the VOP**

The purpose and scope of the VOP is to encourage SWTPs in Virginia with gravity flow, granular media filters to provide finished water quality that exceeds the minimum regulatory standards and to operate water systems in an exemplary manner using existing treatment infrastructure, without any new treatment or capital improvements, thereby reducing the risks to public health by achieving drinking water quality above and beyond the regulatory standards. This *Field Operations Manual* will be posted on Town Hall ([www.townhall.virginia.gov](http://www.townhall.virginia.gov)) after public comment.

The VOP is implemented through establishing optimization performance goals, communicating these goals to affected waterworks, evaluating performance metrics, and providing awards to SWTPs with superior performance. VDH-ODW believes that when waterworks owners and operators are aware of these enhanced performance goals and track-specific performance measures, they will improve the finished water quality delivered to their consumers, and consequently enhance the overall public health protection. A flow chart outlining the overview of the VOP shows the inter-relationships of the program components.



*Flow Chart. Overview of the Virginia's Optimization Program for Turbidity.*

VOP has focused on treatment optimization based on state-wide optimization criteria and a mechanism for monitoring and tracking goal attainment. It will continue to embrace enhanced turbidity removal at SWTPs with gravity flow, granular media filters, and will also support and encourage other aspects of the EPA's AWOP, which includes membrane filtration treatment optimization, distribution system optimization (DSO), and disinfection by-products (DBP) optimization, among others. For additional discussion on these topics, see <https://www.epa.gov/sdwa/optimization-reduce-disinfection-byproducts-dbps>.

## **2. Optimization Performance Goals**

The concept of optimization performance goals was developed over a period of time, through research and actual plant performance studies by the EPA, American Water Works Association (AWWA), and the waterworks industry. Through the VOP, VDH-ODW has periodically evaluated the EPA's AWOP programs, the AWWA/Water Resources Foundation (WRF) established optimization programs and goals, and developed goals for adoption in Virginia. The references and studies cited below in Section 6 were utilized to develop this concept and the subsequent optimization performance goals, particularly Reference 1, *Handbook – Optimizing Water Treatment Plant Performance Using the Composite Correction Program*, (CCP), EPA (1998).

### **2.1. The VOP Committee**

The VOP Committee, which consists of representatives from each field office and the central office, is charged with the following responsibilities:

1. Support and maintain the established VOP for SWTPs;
2. Advocate for the established VOP by training and outreach;
3. Support the VOP awards program;
4. Participate in the EPA Region 3 AWOP;
5. Evaluate new performance goals, guidelines and tools, and make recommendations to ODW leadership about implementation; and
6. Recommend and incorporate performance-based activities into existing surveillance programs (such as sanitary survey process, special studies, local training, etc.).

The VOP Committee will periodically evaluate EPA's AWOP programs and other established optimization programs and goals, and develop attainable goals with reasonable effort for adoption in Virginia. These goals will enhance public health protection and waterworks performance. The current optimization performance goals have evolved and are progressively modified as new goals are adopted. The initial set of optimization performance goals became effective January 1, 2005. These goals were subsequently revised, effective January 1, 2013, and more recently, effective January 1, 2020.

### **2.2. Key Decisions in Optimization Performance Goal Setting**

Virginia evaluated the goals proposed in the CCP, in the EPA's AWOP and in the AWOP plans from other states, and the research supporting these goals, and adopted similar goals (see also Section 6). Key decisions in the goal-setting process for SWTPs included:

- Evaluate attainment of most optimization goals on a monthly rather than a yearly basis in order to provide more frequent feedback on plant performance, and to enable more rapid reaction to trends that may indicate poor performance.
- Adopt standards with “less than or equal to,” i.e., “does not exceed,” language in some instances in order to conform to the Surface Water Treatment Rule (SWTR) standard for filtered water turbidity (does not exceed 0.3 NTU).
- Utilize filtered water turbidity readings taken every 15 minutes (minimum), instead of the 4-hour frequency in the CCP and AWOP programs. (Continuous turbidity monitoring was not a standard practice when the CCP and AWOP programs were initially developed, but is now prevalent in Virginia.)
- Include backwash recovery period goals in order to assess effectiveness of backwash procedures.
- Increase the precision of individual unit filtered water goals from 0.3 NTU to 0.30 NTU. This is an effort to raise the awareness of the turbidity readings.
- Increase the precision of individual unit filtered water goals from 0.1 NTU to 0.10 NTU in order to align Virginia’s program with EPA’s originally intended goal and maintain more optimal *Cryptosporidium* removals than would be provided with a 0.1 NTU goal.
- Establish filter backwash goals as a separate category with an annual evaluation period and a reduction in performance expectations from 100% of backwashes every month to 95% of backwashes for the year. The change from a monthly to annual evaluation period is to provide a more statistically valid basis for evaluation of performance among treatment plants by increasing the population of events being evaluated. The change from 100% to 95% performance expectation is to encourage the implementation of optimal backwashing procedures, i.e., a treatment plant is less likely to stop attempting to reach the performance standard if they miss the goal once in a while.
- Delete two of the filter backwash goals that dealt with facilities that did not have the capacity to filter to waste, since all Virginia SWTPs have the capability to filter to waste.

Clarification and filtration performance are tied to the optimization performance goals derived through the VOP and AWOPs. Virginia has adopted performance goals for clarification and filtration processes at SWTPs as follows:

<b>VOP Clarification and Filtration Goals<sup>1,3</sup> (Effective January 1, 2020)</b>
Clarification <sup>2</sup> (Individual unit preferred, or other combinations as currently monitored) {monthly evaluation period} <ul style="list-style-type: none"> <li>● Effluent turbidity <math>\leq 1.0</math> NTU 95% of time when average raw water turbidity for month <math>\leq 10.0</math> NTU</li> <li>● Effluent turbidity <math>\leq 2.0</math> NTU 95% of time when average raw water turbidity for month <math>&gt; 10.0</math> NTU</li> </ul>
Filtration (Individual Filters) {monthly evaluation period} <ul style="list-style-type: none"> <li>● Filtered water turbidity <math>\leq 0.1</math> NTU 95 % of time</li> <li>● Filtered water turbidity <math>\leq 0.3</math> NTU 100 % of time</li> </ul>
Filter Backwash (sum of all backwashes for all filters) {annual evaluation period} <ul style="list-style-type: none"> <li>● Filtered water turbidity <math>\leq 0.10</math> NTU 95% of time a filter is placed into service following a backwash</li> </ul>

1. With the decommissioning of the last SWTP without filter-to-waste capability, ODW revised the goals, effective January 1, 2020.
2. Clarification includes sedimentation basins, up-flow clarifiers, absorption clarifiers, dissolved flotation units.
3. Those SWTPs that do not continuously monitor individual filters or that record data on charts may use a 2-hour interval.

### **3. Required Monitoring and Reporting – Monthly Operation Reports**

To measure if waterworks are attaining their VOP goals, VDH-ODW has established uniform monitoring and reporting requirements for the various SWTRs and optimization performance criteria that are in effect. SWTPs must submit monthly operation reports (MORs) with data consistent with the requirements of the VOP as described in this section. District Engineers must review the MORs to ensure that the mandatory data elements from the participating waterworks are entered into the monitoring and reporting VOP module of the software program created especially for this purpose.

ODW field staff must establish the MOR requirements in accordance with this policy and the SWTR and its successors. Monitoring and reporting requirements are described in this section, such that District Engineers may customize the reporting template (such as in Excel) for each waterworks, and may update it as necessary. Alternatively, the SWTPs may generate a monthly report using its own Supervisory Control and Data Acquisition (SCADA) system software, provided that the content in the template is included. The District Engineer must provide a MOR template, in Excel format, and instructions to each SWTP.

#### **3.1. Minimum Data Monitoring Requirements**

Typically, those SWTPs that do not continuously monitor individual filters or that record data on charts may use a 2-hour interval. The minimum requirements are as follows:

- Raw water turbidity @ 2-hour intervals (15-minute intervals if continuous monitoring is provided).
- Clarified water turbidity @ 2-hour intervals (15-minute intervals if continuous monitoring is provided).
- Filtered water turbidity (individual filter) when filter is returned to service following a backwash.

#### **3.2. General Monitoring and Reporting Requirements**

The following table exemplifies all of the reporting parameters that apply to all SWTPs with gravity flow, granular media filters.

<b>Location</b>	<b>Parameter</b>	<b>Frequency (Minimum Required)</b>	<b>Reported</b>
Raw Water	Flow, gal	Continuous	Daily & monthly totals; hours per day in operation
	pH	1 per 2 hours or continuous	Daily average & range



<b>Location</b>	<b>Parameter</b>	<b>Frequency (Minimum Required)</b>	<b>Reported</b>
	Alkalinity, total, mg/l	Daily	Value
	Hardness, total, mg/l as CaCO <sub>3</sub>	Daily	Value
	Temperature, °F	Daily	Value
	Turbidity, NTU	1 per 2 hours or continuous	Daily average & range
	Iron <sup>1</sup> , Manganese, mg/l	Daily	Value
	Color <sup>1</sup> , Odor	Daily	Value
	TOC <sup>2</sup> , mg/l	1 per month	Value
	Bromide <sup>3</sup> , mg/l	1 per month	Value
Post flash mix	pH	1 per 2 hours or continuous	Daily average & range
	Alkalinity, total, mg/l	Daily	Value
Applied Water <sup>4</sup>	Turbidity, NTU	1 per 2 hours or continuous	Daily average <sup>5</sup> & max
	Disinfectant residual <sup>6</sup> , mg/l	1 per 2 hours or continuous	Daily average & range
Cleaning sedimentation basins/clarifiers		Report monthly	Last date each basin was cleaned
Filtered Water - Individual Filters	Turbidity, NTU	Continuous [or 1 per 2 hours if continuous turbidimeter out of service] or 1 per 2 hours if continuous monitoring of individual filters is not provided	Max. daily value, total # measurements; number & percent < 0.30 NTU, number & percent < 0.10 NTU, Exceedance Scenarios & follow-up action.
Filtered Water - Represent ative Samples of Filtered Water	Turbidity, NTU combined filter effluent prior to entry into a clearwell, or clearwell effluent, or plant effluent prior to entrance to distribution system, or average of measures from each filter effluent at the determination time	1 per 4 hours	Total # measurements; number & percent < 0.30 NTU, number of results > 1.0 NTU;
Finished Water	Flow, gal (water produced)	Continuous	Daily & monthly totals; hours per day in operation
	Flow, gal (water delivered= produced- consumed in plant)	Continuous	Daily total

Location	Parameter	Frequency (Minimum Required)	Reported
	pH	1 per 2 hours or continuous	Daily average & range
	Alkalinity, mg/l, total	Daily	Value
	Hardness, mg/l, total & calcium	Daily	Value
	Iron <sup>1</sup> , Manganese, mg/l; Color <sup>1</sup> , Odor	Daily	Value
	Turbidity <sup>7</sup> , NTU	1 per 2 hours or continuous	Daily average & range
	Disinfectant residual, mg/l	1 per 2 hours or continuous (>3,300 pop)	Daily average & minimum
	Fluoride, mg/l (if added)	Daily	Value
	Fluoride Split Sample	Monthly	Values
	Corrosion Inhibitor, mg/l (if added)	Daily	Value
	Chlorite, mg/l (if ClO <sub>2</sub> used)	Daily	Value
	Bromate, mg/l (if ozone used)	1 per month (or reduced per Rule)	Value
	Chlorine dioxide, mg/l (if used)	Daily	Value
Recycled Flows <sup>8</sup>	Flow, gallons		Daily total

1. Only if removal is a treatment objective.
2. May be reported separately to VDH by the owner or laboratory. Result is paired with a TOC sample, taken no later than the point of combined filter effluent. Alternative criteria may be reported, per D/DBP Rule.
3. Only if ozone is used and bromate monitoring reduction is desired.
4. Individual basins preferred, or combined effluent.
5. Also report total # of measurements: number & percent  $\leq 1.0$  NTU, number & percent  $< 2.0$  NTU.
6. Only if adding disinfection chemicals which produce a measurable residual parameter.
7. Only if chemical addition after filters, or if substituting for combined filtered water per ESWT Rule.
8. Water quality parameters as determined by the District Engineer.

### 3.3. Continuous Monitoring Requirements – Filter Operation

Measurements from continuous turbidity monitors shall be recorded (digitally or graphically) at least every 15 minutes. Daily average, maximum, and minimum shall be computed from the 15-minute values. Continuous turbidity monitors shall be standardized daily and calibrated quarterly.

Filter Operation	
Parameter	Reported
Filter run time, each filter	Number of hours prior to backwash
Filter Head Loss, each filter	Prior to and after backwash
Filter Effluent Turbidity, each filter	Prior to backwash and when placed into clear well
Backwash Water Volume	Total Gallons Used
Actual filter-to-waste (rewash) time	Minutes
Turbidity during backwash recovery period <sup>1</sup>	Maximum
Time of backwash recovery period <sup>1</sup>	Minutes
Filter Drop Test Results, each filter (unless SCADA or other auto method available)	Quarterly
Filter Rise Test Results, each filter (unless SCADA or other auto method available)	Quarterly

1. Backwash recovery period extends from when filter is restarted after backwashing until filtered water turbidity  $\leq 0.10$  NTU.

### 3.4. Report Monitoring – Chemical Addition and Giardia Inactivation

Chemical Addition				
For Each Chemical Added, Report				
Weight applied (i.e.: “lb/day as P”) - daily total				
Dosage (i.e.: “mg/L of total product” or “mg/L as PO <sub>4</sub> ”) - daily average				
Chemicals Added	Form Used	Manufacturer/ Product Name	NSF 60? (Yes/No)	Point of Application
Algaecide (copper sulfate, other)				
Coagulant				
Coagulant Aid (polymer)				
pH Adjustment (lime, caustic, soda ash)				
Adsorbent (activated carbon)				
Oxidant (chlorine, chlorine dioxide, ozone, potassium permanganate, other)				
Filter aids (polymer, other)				
Corrosion Inhibitor				
Fluoride				
Disinfectant (chlorine, chloramines, chlorine dioxide, other)				
Giardia Inactivation				
Location	Frequency (Minimum)	Reported <sup>1</sup>		
Prior to clearwell	Daily	Log inactivation during peak hour flow		
Clearwell only	Daily	Log inactivation during peak hour flow		
Total	Daily	Log inactivation during peak hour flow		

1. Disinfection profile data (per ESWT Rule) may be substituted.

**4. Waterworks Recognition Criteria**

For waterworks to evaluate the relative performance of their SWTPs (with gravity flow, granular media filters) in comparison with other such facilities in the Commonwealth, and to provide waterworks with an incentive to improve the performance of their SWTPs, ODW produces an annual “weighted ranking” report listing each eligible SWTP in the Commonwealth and ranking their relative performance to other SWTPs, based on the MOR data submitted for the calendar year.

**4.1. Weighted Ranking of Plant Performance**

The “weighted ranking” report will be generated by the Division of Technical Services, provided to the VOP Committee for finalization, and then posted on [\odwsvr1\odwshare\02-Committees\203-Task Teams\AWOP-CPE\03-Statistics](#). District Engineers will review the report data for accuracy. The final data is also reported to EPA Region 3 annually.

Field Office staff must complete data entry of the VOP data by a date determined together by the VOP Committee and the Division of Technical Services, usually the end of February. Following this data entry, the “weighted ranking report” can be generated.

District Engineers may share performance ranking information with SWTP staff within a work area or field office to inspire improved performance and better understanding of the VOP. Engineers may use the two tables below (with applicable data filled in) comparing relative weighted performance ranking of SWTPs within a work area or field office for the past calendar year. The tables below can be used in sanitary surveys or under separate correspondence to the waterworks manager and operators, with further discussion on optimization performance, progress, etc.

<b>Virginia Optimization Program Rank</b>		
<b>PWSID</b>	<b>Water Treatment Plants in Work Area (or Field Office)</b>	<b>Rank</b>

<b>Relative Ranking of SWTPs from Year to Year</b>							
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
Number of VOP SWTPs in Virginia							
SWTP Rank							
SWTP Weighted Score (20.00 MAX)							
Excellence in Performance Award							

As an example of the VOP reporting, the tables below show a subset of the past rankings for the year 2012 through 2021.

<b>Virginia Optimization Program Rank (2021)</b>		
<b>PWSID</b>	<b>Water Treatment Plants in the Southeast Virginia Field Office</b>	<b>Rank</b>

3830850	City of Williamsburg	26
3710100	City of Norfolk – Kristen M. Lentz WTP	54
3710100	City of Norfolk – Moores Bridges WTP	63
4073311	Gloucester	68
3700500	City of Newport News – Harwoods Mill	71
3700500	City of Newport News – Lee Hall	77
3800805	City of Suffolk	87
3670800	Virginia-American Hopewell	105
3081550	GCWSA – Jarratt	114
3550051	City of Chesapeake	116
3740600	City of Portsmouth	119

Year	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Number of VOP SWTPs in Virginia	130	131	132	132	131	131	130	123	129	126
SWTP Rank	28	24*	27	46	23*	30	28	36	1*	26
SWTP Weighted Score (20.00 MAX)	19.81	19.98	19.98	19.51	19.99	19.93	19.83	19.93	20	19.99
Excellence in Performance Award	Silver	Gold	Gold	Silver	Silver	Bronze	Gold	Silver	Gold	Gold
*Tied with others		3			2				36	

Weighted ranking criteria for SWTPs with gravity flow, granular media filters is effective January 1, 2020. The following table shows how the performance scoring is achieved for each participating SWTP:

Measure	Multiplier
Fraction of filter-months in which VOP filter effluent goal of $\leq 0.10$ NTU $\geq 95\%$ of readings was met	7
Fraction of filter-months in which VOP filter effluent goal of $\leq 0.30$ NTU, 100% of readings, was met	5
Fraction of backwashes for the year in which the filters were returned to service with filter effluent turbidity $\leq 0.10$ NTU	4
Fraction of clarifier-months in which VOP clarifier effluent goal was met	4

Notes:

1. Perfect Score = 20
2. Clarifier-months = sum clarifiers in service for each month of calendar year
3. Filter-months = sum of filters in service for each month of calendar year – may be odd number as a filter may be out of service for an entire month

#### 4.2. Performance Awards

Following completion of the annual ranking, ODW staff will review the performance data to determine if the clarification, filtration, and backwash goals have been met and if the SWTPs have met the criteria for awards. In addition to meeting optimization goals at the SWTP, the answers to the supplemental qualifying criteria outlined below must be “YES” in order to qualify for an award. The District Engineer will review the performance data and complete a questionnaire with the supplemental qualifying criteria to document that the SWTP is qualified to receive the award.

The timeframe for completing this review is determined by the VOP Committee and usually is during the month of March. This timeframe considers the time necessary to generate and sign the performance award certificates and notify the recipients. The award categories of gold, silver, and bronze and their criteria are outlined below. In addition to meeting optimization goals at the SWTP, the answers to the following questions must be “YES” in order to qualify for an award:

<b>Waterworks Recognition Criteria</b>		
Supplemental Qualifying Criteria: During the calendar year, has the SWTP... (note that the questions below apply to the subject SWTP and do not include the distribution system or other SWTPs under the same PWSID)	YES	NO
a) Collected all required entry point samples for the SWTP?		
b) Maintained a disinfectant residual $\geq 0.2$ mg/L for water entering the distribution system from the SWTP in $\geq 95\%$ of the days the SWTP is in operation?		
c) Maintained a log <i>Giardia</i> inactivation $\geq 0.5$ in 100% of the days the SWTP is in operation?		
d) Not had a Significant Deficiency?		
e) Been generally responsive to and promptly addressed Sanitary Survey Comments?		
f) Not had a Primary Maximum Contaminant Level or Treatment Technique violation?		
g) Not had any operational deficiencies that would not be congruent with the SWTP receiving a Virginia Excellence in Water Treatment Plant Performance Award?		

While the performance goals and weighting provide a means to rank all the eligible SWTPs with a score from 0 to 20, recognition levels for awards are set for those systems meeting the goals as follows:

- Bronze: meets the goals/criteria for filtration.
- Silver: meets the goals/criteria for Bronze and meets clarification goals, OR backwash goal.
- Gold: meets all three criteria.

ODW staff will review the calendar year of MORs to determine if the clarification, filtration, and backwash performance goals have been met.

*Important Note:* A SWTP will be disqualified if there are violations during the evaluation period that are not distribution-system related (i.e., violations related to the SWTP will disqualify for awards).

### **5. Coordination with Sanitary Survey Program**

ODW engineers will address the VOP performance data during sanitary surveys in order to increase waterworks owners’ and operators’ awareness of performance goals. Also, the ODW

engineers must use the tables in the SWTP sanitary survey form to review pertinent performance data with the plant operators and managers during the field visit. Review comments may also be prepared and sent with the ranking table “ahead of the site visit” to the waterworks in a separate transmittal.

#### **6. References/Studies Used to Develop Optimization Performance Goals**

1. US EPA (1998). *Handbook – Optimizing Water Treatment Plant Performance Using the Composite Correction Program*, (CCP).
2. Dugan, Nicholas R. (2001). *Controlling Cryptosporidium Oocysts Using Conventional Treatment*, Journal AWWA, 93, 12, pp. 64 – 76.
3. Patania, Nancy L. et al. (1996). *Optimization of Filtration for Cyst Removal* (90699), AWWA Research Foundation.
4. Huck, P. M. et al. (2002). *Effects of Filter Operation on Cryptosporidium Removal*, Journal AWWA, 94.6, page 97 et seq.
5. Emelko, M. B. et al. (2003). *Cryptosporidium and Microsphere Removal During Late in-Cycle Filtration*, Journal AWWA, 95, 5, page 173 et seq.
6. Amirtharajah, Appiah, (1988). *Some Theoretical and Conceptual Views of Filtration*, Journal AWWA, 80, 12, page 42.
7. Swaim, P. D. et al. (1996). *High-Rate Direct Filtration for Giardia and Cryptosporidium Removal*, Proceedings of the 1996 AWWA Annual Conference, Ontario, Canada.
8. Baudin, I. & Laine, J. M. (1998). *Assessment and Optimization of Clarification Process for Cryptosporidium Removal*. Proceedings of the 1998 AWWA WQTC, San Diego, California.

# Chapter 5 – Safety in the Workplace

## **1. Safety is Everyone’s Responsibility**

All workers have the right to a safe workplace. The goal of the Office of Drinking Water (ODW) is for all employees to be sufficiently knowledgeable in the guidelines of safety while performing the work of the office, both internally and externally, while conducting sanitary surveys and other fieldwork, to be aware of surroundings, and to be able to respond appropriately.

ODW staff generally work in three settings:

- Office Environment – ODW controls safety; OPGS 10.1 Safety Events Policy applies.
- Driving – While driving on agency business, OPGS 8.5 VDH Driver Safety Policy applies.
- Field – While conducting fieldwork, ODW staff are the guests of the waterworks owner or property owner. While at a waterworks, a construction site, a well site, or other field location, ODW employees may encounter various workplace hazards. Although the waterworks owner may be required to implement a worker safety program for their employees, ODW employees must remain aware of potential safety hazards and take appropriate steps to avoid or mitigate the safety hazards.

## **2. Safety in the Field**

For ODW staff, fieldwork includes, but is not limited to, the following:

- Conducting sanitary surveys;
- Observing activities at construction sites;
- Performing well-site inspections;
- Complaint investigations;
- Other situations involving a physical visit to a site where potential hazards may exist.

## **3. Hazard Analysis**

OSHA defines a hazard as the potential for harm. A hazard is often associated with a condition or activity that, if left uncontrolled, can result in injury or illness. Various industry standards estimate 90-98% of all incidents are a result of someone’s unsafe act. Whether the unsafe act resulted in an unsafe condition that the injured employee found or the unsafe act of the employee directly led to an injury, the outcome is still the same - an injury or illness occurred. With hazard analysis, the goal is to identify the hazards, and then take the necessary steps to eliminate or reduce the risk to an acceptable level.

## **4. Typical Hazards**

Table 1 lists potential workplace hazards that ODW staff may encounter during work activities and recommended field mitigations, in all settings. This is not an all-inclusive list, but illustrates the general types of workplace hazards, and may be used when completing a hazard analysis. It is important for field staff or any ODW employee engaging in any fieldwork to take any necessary precautions to ensure personal safety.



<b>Table 1. Typical Workplace Hazards.</b>	
<b>Workplace Hazard</b>	<b>Recommended ODW Field Mitigation</b>
Exposed parts on machinery, equipment, or tools that can spin or rotate, cut, roll, press, or grip during operation, adjustment, or maintenance activities.	Avoid
Materials that can engulf someone, such as soil in excavations, silage in grain storage, or sludge.	Avoid
Working up high from ladders, roofs, aerial lifts, cranes, tanks, etc.	Avoid
Floor or roof holes, uneven surfaces, and other defects on walkways or working surfaces.	Avoid
Hazardous liquids, vapor, spray, dust, or gas released into the air or on surfaces due to work activities, processes, or emergencies.	Avoid; wear PPE
Biological substances like blood, animal waste, and mold that can cause illness.	Avoid; wear PPE
Low oxygen areas or spaces caused by decay or fermentation; or by replacement gasses like nitrogen.	Avoid
Exposed or damaged electrical system parts such as plugs, receptacles, extension cords, and wires.	Avoid; do not touch
Energized overhead or buried power lines.	Avoid
Tools, machinery, or walking surfaces that have become energized due to contact with energized power lines.	Avoid; do not touch
Flammable liquids used around ignition sources like electric heaters, welding sparks, and open flame.	Avoid
Combustible organic or metal dust accumulations in and around process equipment.	Avoid
Projectiles and flying particles.	Avoid; wear eye protection
Machinery or equipment that can suddenly start up or become energized during servicing or installation due to the possible release of stored energy (e.g., pneumatic, hydraulic, electrical, thermal, etc.).	Avoid; do not touch
Stacked or overhead items or materials that can fall or tip over and strike someone.	Avoid
Violent individuals committing robbery or assault.	Avoid
Traffic and other danger zones where forklifts, excavators, loaders, tractors, trucks, and cars operate.	Avoid
Hot surfaces exposed on process equipment.	Avoid; do not touch
Working outdoors in hot weather.	Use PPE
Hot indoor environments like foundries or structural fires.	Avoid
Steam	Avoid; do not touch
Loud noise from machinery, compressed-air tools, or other sources.	Avoid; use PPE

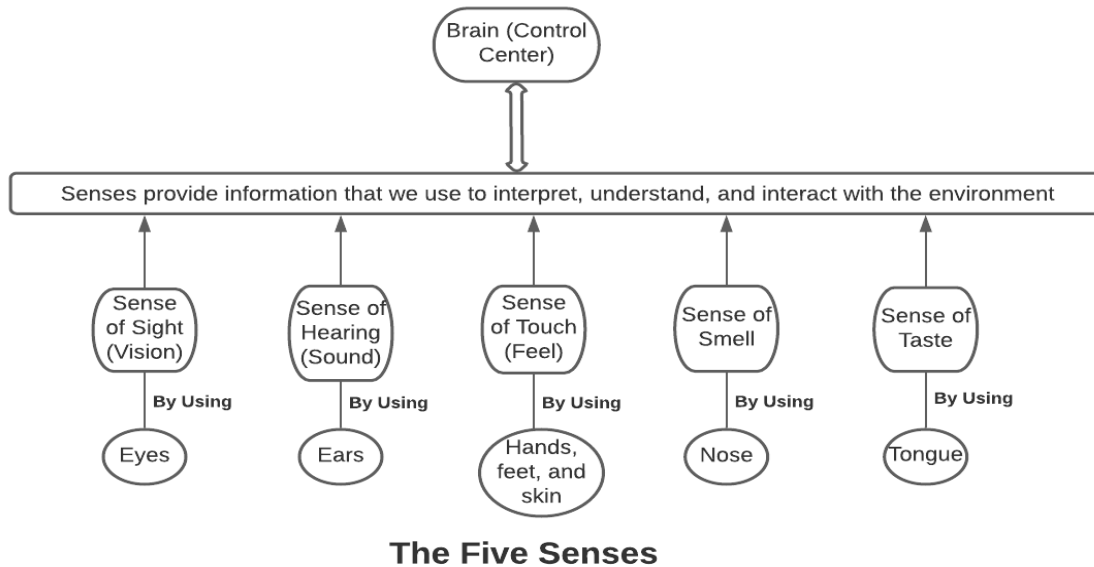
**Note:** PPE = Personal protective equipment.

## **5. Identification of Hazards in the Field**

Generally, ODW staff should apply their sensory abilities (i.e., one or more of the five basic senses; see sketch below) and good personal judgment to observe and understand the workplace, whether it is internal or external to the office environment, and to assess the presence of workplace hazards. Staff must be alert and vigilant in order to maintain their individual safety.

## **6. Addressing Workplace Hazards**

Workplace hazards are addressed by either engineering controls, administrative controls, or providing employees with personal protective equipment (PPE). Engineering controls implement a physical change to the workplace, which eliminates/reduces the hazard on the



job/task. Administrative and work practice controls establish processes or procedures. The use of PPE to reduce exposure to hazards is the last layer of defense.

Generally, ODW as an institution can address workplace hazards by the following three methods:

- Change what is used (safer materials and equipment, etc.);
- Change how work is done (safer methods or tools, use of PPE, etc.); and
- Change something about the location (improve ventilation, limit access, etc.).

While in the office or while driving, ODW staff can mitigate hazards by being aware of one or more of these methods. *ODW does have some control of its workplace.* When ODW staff are in the field, they do not control the workplace and the activities in the workplace, and are frequently not able to correct a workplace hazard; however, they can control their own activities and their location with respect to the hazard. While in the field, ODW staff must avoid hazards and wear appropriate PPE. If necessary to avoid the hazard, ODW staff may stop the work or activity and withdraw from the work area until the owner corrects the hazard or the hazard is mitigated.

## **7. ODW Specific Hazard Mitigation**

The following addresses some specific hazards that staff, especially regarding field staff during sanitary surveys, should be aware of. However, for other hazards, such as poison ivy, insects, snakes, and others, staff should obtain the requisite training before venturing out into the field on sanitary surveys and other site visits. ODW should establish a “policy-driven” comprehensive, active, and ongoing safety program ensuring safety awareness of its staff.

### **7.1. Ladders and Tanks**

ODW staff are not to climb ladders beyond one story high, and are not to climb tanks. ODW staff may climb stairs, and may use stairs to reach the top of a clarifier tank or sedimentation basin. ODW staff conducting sanitary surveys or other inspections are not required to climb ladders to inspect or observe any waterworks facilities at higher elevations (e.g., elevated and atmospheric storage tanks). In such cases, the waterworks owner should provide information and observations obtained by other means from professionals, which would otherwise be available through climbing ladders and tanks.

### **7.2. Confined Spaces**

A confined space is defined as (1) large enough to bodily enter; (2) not designed for continuous occupancy; and (3) have limited means for entry and exit. Confined spaces may or may not be labeled, but include vaults, pits, manholes, silos, tanks, etc. ODW staff are not to enter confined spaces due to the hazards associated with confined spaces. Confined space entry requires special training, and the requirements may be specific to the space that is to be entered and hazards that may be encountered. For additional information, see FM-C5-Attachment 1 “*General Safety Fact Sheet - Basic Information: Safety in the Workplace*”. Staff may request trained and authorized waterworks personnel to photograph parts of the waterworks located in confined spaces to validate the condition of equipment/infrastructure of interest in the inspection.

### **7.3. Operating Equipment and Fire Hydrants**

ODW staff should not operate any equipment within the waterworks, including pumps, valves, and fire hydrants, except under the supervision of the waterworks operator. To assess the distribution system water quality for a specific service area, the field staff (inspector) may request the operator to flush a fire hydrant to observe the water coloration. This would help to establish or validate flushing frequencies and schedules.

### **7.4. Typical Tools and Equipment That Enhance Safety**

The following list is not all-inclusive, but represents positive approaches toward ensuring safety with the potential of accident reduction in the workplace:

- Personal protective equipment (PPE): safety glasses, safety goggles, safety shoes, a Type III high-visibility vest, a hardhat with suspension, and heavy duty gloves are issued to each employee with field duties. Safety shoes can be ordered directly from <https://www.safgard.com/vdh-odw/storelogin>, but employees should ensure they have approval from their supervisors before making a purchase. Employees are responsible for keeping PPE in good working order and requesting replacements when necessary. KN-95 face masks, surgical face masks, ear plugs, and nitrile gloves are available in each office for use as needed.
- Other equipment that may be provided on a case-by-case basis, or that employees may wish to purchase on their own, include:

- Eyewash equipment
- Flashlight
- Mirror
- First-aid kit
- Applicable seasonal wear
- Test kits
- Camera (or cell phone equipped with camera)
- Cell phone

**8. Completing a Hazard Analysis**

ODW staff may use the hazard analysis, below, when preparing for fieldwork. Circle the types of hazards present in the hazards columns. Identify whether any work permits are required, the type of work that may be occurring, and the needed PPE in the middle column. Identify the purpose of visit, waterworks representatives, and other pertinent information in the right column. A typical hazard analysis template is shown below (for a copy of the template, staff can use FM-C5-Attachment 2). Examples of hazard analyses for typical situations are provided in FM-C5-Attachment 3.

<b>TYPES OF HAZARDS</b>	<b>PERMIT REQUIREMENTS</b>	<b>Hazard/Risk Analysis</b>
<p><b>Access</b> Congested area, Uneven ground, Confined Space, Overhead obstruction, Objects in walkway, Unsecured decking, Clutter, High Work</p>	<p><b>Y N/A PERMIT REQUIRED</b>  <input type="checkbox"/> <input type="checkbox"/> General (Safe) Work – No permit required  <input type="checkbox"/> <input type="checkbox"/> Hot (flame/spark) Work occurring  <input type="checkbox"/> <input type="checkbox"/> Live Electrical(NFPA 70E ) Work occurring  <input type="checkbox"/> <input type="checkbox"/> Confined Space Entry required?  <input type="checkbox"/> Other: _____</p>	<p>Today's Date: _____ Time: _____</p> <p>Name: _____</p>
<p><b>Caught In/Struck By</b> Sharp objects, Pinch points, Hot/cold surfaces, Open holes, Overhead workers, Struck-by Objects, Strike against objects, Fire/spark</p>	<p><b>Y N/A PROCESS REQUIREMENTS</b>  <input type="checkbox"/> <input type="checkbox"/> Job scope understood  <input type="checkbox"/> <input type="checkbox"/> LO/TO verified  <input type="checkbox"/> <input type="checkbox"/> SDS reviewed  <input type="checkbox"/> <input type="checkbox"/> Lines drained/purged  <input type="checkbox"/> <input type="checkbox"/> Low points checked  <input type="checkbox"/> <input type="checkbox"/> Oxygen/Flammability check verified  <input type="checkbox"/> <input type="checkbox"/> Line identification reconfirmed  <input type="checkbox"/> <input type="checkbox"/> Close drain/vents when finished  <input type="checkbox"/> <input type="checkbox"/> Initial entry procedure reviewed  <input type="checkbox"/> <input type="checkbox"/> Confined Space Procedure/Rescue Plan Reviewed  <input type="checkbox"/> <input type="checkbox"/> Tool/Equipment proper for job and in safe condition  <input type="checkbox"/> <input type="checkbox"/> Communicated work with others in area  <input type="checkbox"/> <input type="checkbox"/> Is High work/ Climbing required?  <input type="checkbox"/> Other: _____</p>	<p>Waterworks to Be Inspected: _____</p> <p>Area to Be Inspected: _____</p>
<p><b>Environment</b> Noise, Dust, Weather, Lighting, Heat, Wet areas, Wind, Plant processes, Lead, Asbestos, Hot/Cold surface, Heat Stress</p>	<p><b>PPE ASSESSMENT</b>  <input type="checkbox"/> <input type="checkbox"/> Hardhat/Bump Cap  <input type="checkbox"/> <input type="checkbox"/> Goggles  <input type="checkbox"/> <input type="checkbox"/> Gloves: _____  <input type="checkbox"/> <input type="checkbox"/> Safety glasses <input type="checkbox"/> Face shield  <input type="checkbox"/> <input type="checkbox"/> Clothing: _____  <input type="checkbox"/> <input type="checkbox"/> Safety shoes <input type="checkbox"/> Ear Plugs  <input type="checkbox"/> <input type="checkbox"/> Face protection <input type="checkbox"/> Respirator  <input type="checkbox"/> Other: _____</p>	<p>I have been employed less than 90 days and I am considered an at risk employee. Yes ___ No ___</p> <p>Waterworks/Location Host: _____</p> <p><input type="checkbox"/> My evacuation point is: _____</p> <p><input type="checkbox"/> Location of eye wash/shower station: _____</p>
<p><b>Ergonomic</b> Bad body position, Improper or static body position (awkward objects or work position), Excessive force (heavy objects, torque), Excessive repetition, Excessive duration, Over-reaching</p>		
<p><b>Falls</b> To a lower level, At the same level, Slippery surface, Floor or wall opening, Unprotected perimeter, Climbing/Relocating</p>		
<p><b>Hazardous Material</b> Burns, Exposure, Inhalation, Splashing, Fumes, Spills, Airborne Particles, Trapped substances, Lead, Asbestos</p>		
<p><b>Stored Energy</b> Pressure, Tension, Electrical, Combustible, Flammable/Explosion, Static electricity, Pneumatic, Chemical</p>		
<p><b>Tools/Equipment</b> Airborne particles, Fumes, Arcflashes, Sharp edges, Line of fire, Wrong tool for the job, Broken tools, Rotating parts, Vibration, Shock</p>		

*Risk Assessment Template - Considerations and Approach to a Hazard Analysis*

## **9. Preparing for a Sanitary Survey**

As part of the preparation for the sanitary survey, the field staff (inspector) should become familiar with the general configuration of the waterworks, the treatment chemicals employed, and other attributes from a safety standpoint and situational awareness. In advance of the site visit, the inspector should review the operation permit, waterworks engineering description sheet, and existing photos taken by others in previous sanitary surveys to provide a “sense” of what to expect to see. As part of the inspection preparation, the inspector may complete a Hazard Analysis specific to the waterworks site to guide selection of PPE and inform fieldwork activities (See FM-C5-Attachment 2).

All inspectors should be prepared to “**think outside the box**” as they navigate through the eight essential elements of the sanitary survey:

1. Source
2. Pumps, Controls, and Pump Facilities
3. Treatment
4. Distribution System
5. Finished Water Storage
6. Monitoring, Reporting, and Data Verification
7. Water System Management and Operations
8. Operator Compliance with State Requirements

In some circumstances, it may be necessary to request one or more of the following reports from the waterworks owner:

- Latest inspection report of hydropneumatic (or pressure) storage tanks required by the Department of Labor and Industry (DOLI).
- Photographs/reports of certain equipment not previously inspected by ODW staff due to safety reasons; e.g., storage tank roof hatches, cables, vents, vent screens, and overflow pipes.
- Reports/photographs to validate the completion of maintenance work done on the internal surfaces of any finished water storage tanks.

### **Attachments**

FM-C5-Attachment 1. General Safety Fact Sheet - Basic Information: Safety in the Workplace

FM-C5-Attachment 2. Risk Assessment Template

FM-C5-Attachment 3. Risk Assessment Examples

## Chapter 6 - Status Reporting of Waterworks during Emergency Situations, Natural Disasters, and Area-Wide Incidents

### Summary

During emergency situations, natural disasters, and area-wide incidents, the Office of Drinking Water (ODW) field office staff are responsible for notifying the ODW Central Office of water system impacts to primarily community waterworks. The ODW Central Office uses this information to ensure emergency response partners understand the severity of ongoing incidents, are prepared to mobilize the necessary resources to assist affected waterworks, and can address secondary impacts of waterworks outages.

The reporting process can begin in one of two ways depending on the event type:

1. Single Waterworks Event

This type of event begins when a waterworks contacts the ODW field office to report an emergency situation that only affects an individual waterworks. The field office provides an initial notification and updates using the *VDH-ODW Water Advisory and Power Outage Online Reporting Tool (Online Reporting Tool)*. Once the waterworks is operating normally again, the field office will designate the relevant entry as “System Restored” in the *Online Reporting Tool*. No further updates are needed, and the incident is then closed.

2. Area-Wide Event

When an emergency occurs that is likely to affect multiple waterworks, the Central Office or Field Office Director may request that the field office staff contact waterworks proactively to determine what adverse impacts have occurred or may be imminent. The field office should generally report adverse impacts using the *VDH-ODW Water Advisory and Power Outage Online Reporting Tool*, but this may become burdensome during a high-impact event. In such a case, the Field Director should work with the Emergency Services Coordinator to make alternate arrangements. The Central Office or Field Office Director will notify field office staff when reports may be discontinued.

Accurate and timely event notifications help the Commonwealth mobilize resources in support of waterworks and affected populations during an emergency. In response to field office notifications, the Central Office will provide status updates on any resource needs the field offices report, and will share all relevant information from ODW’s emergency response partners.

### 1. Definitions

“Event” means any situation that adversely impacts waterworks, particularly the community waterworks. The following table outlines examples of events that are of interest to ODW:

Events can include:

<b>Event Type</b>	<b>Examples</b>
Natural Hazards	Hurricane, flood, earthquake, tornado, ice storm, drought, fire
Man-Made Hazards	Radiological release, chemical spill
Malevolent Acts	Physical assault on utility, contamination of source or finished water (intentional or accidental), sabotage, terrorism
Cyberattacks	Attacks on process control systems, attacks on business enterprise systems, ransomware

“Single Waterworks Event” means any event that is specific to an individual waterworks and is unlikely to impact other unconnected waterworks. Examples may include a broken pipe, targeted cyberattack, or physical assault on the utility.

“Area-Wide Event” means any event that impacts, or may impact, multiple waterworks. Examples include hurricanes, radiological release, or chemical spills impacting source water for multiple systems.

“Current Impact” means a waterworks is currently experiencing an adverse effect on water quality or quantity.

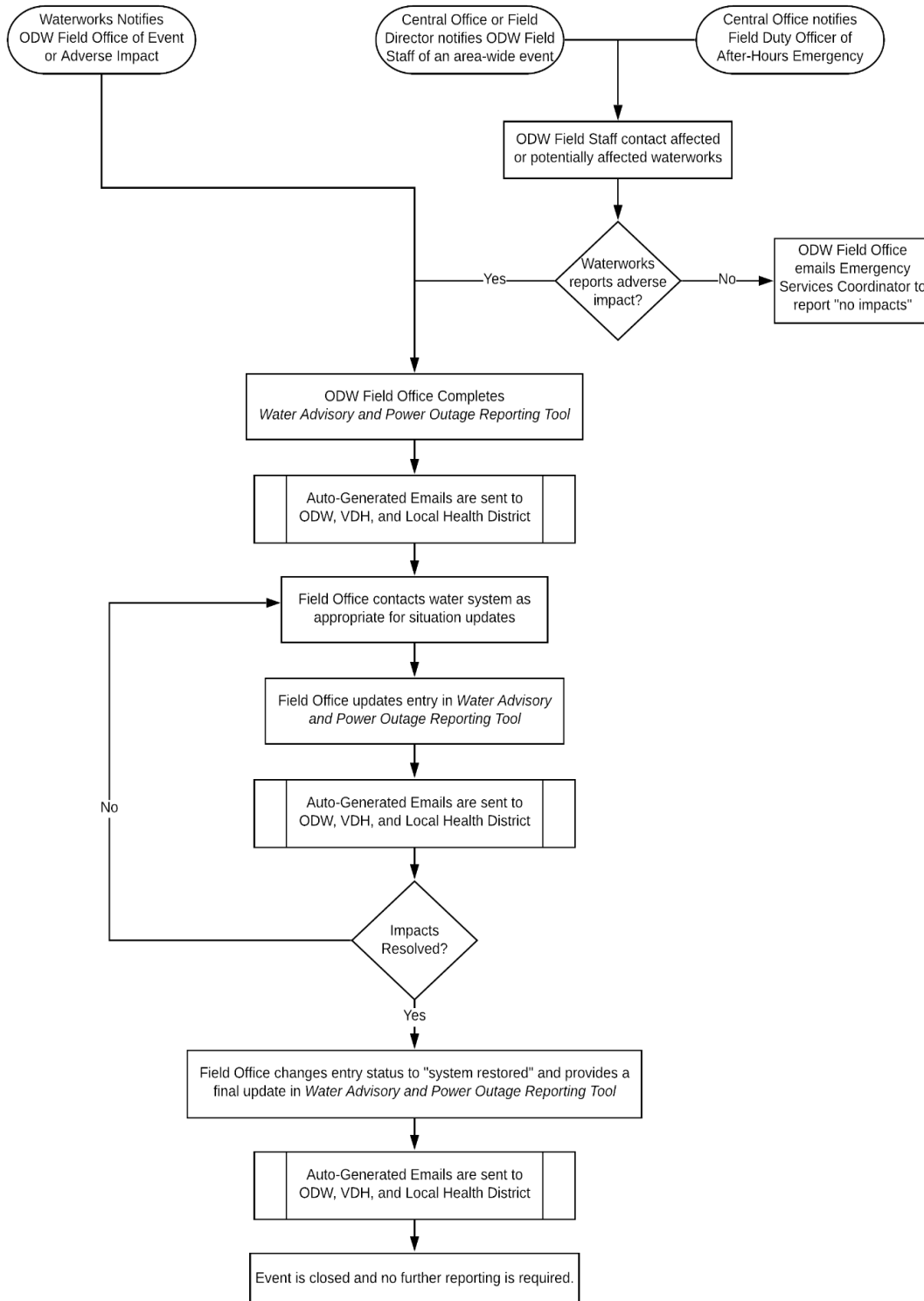
“Initiation” means an ODW field office is aware of an event that has, or may, impact a waterworks. Notification and reporting requirements go into effect immediately once an event is initiated.

“Potential impact” means a waterworks is currently fully operational, but anticipates possible adverse effects on water quality or quantity.

## 2. Process Overview

An outline is provided in the flowing flow chart.

### Waterworks Outage Reporting Process





### 3. Procedures

#### 3.1. Single Waterworks Events

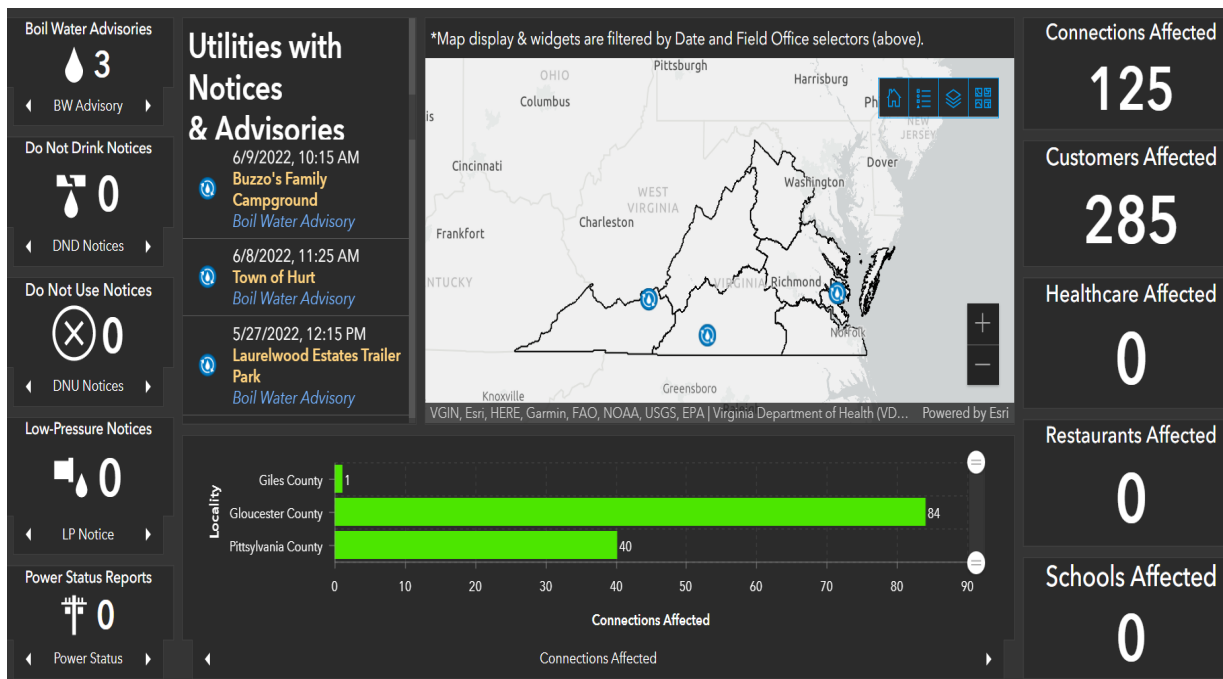
If an event such as a power or equipment failure impacts a single waterworks, ODW expects the waterworks to contact the appropriate ODW field office to report the outage or adverse impact. When the field office receives a report from a waterworks, they will adhere to the following procedure:

Within an hour during normal business hours, or as soon as feasible outside of business hours, the field office completes the [VDH-ODW Water Advisory and Power Outage Online Reporting Tool](#) (*Online Reporting Tool*).

Once the field office submits the report using the *Online Reporting Tool*, the report is automatically sent to the following contacts:

1. Field Office: Director, Deputy Director
2. Central Office: Director, Deputy Director, Emergency Services Coordinator
3. Local Health District: Director, Environmental Health Manager, Emergency Management Coordinator, other contacts as designed by the health district
4. VDH: Commissioner's Office, Office of Emergency Preparedness, OEHS Director, PHP Deputy Commissioner
5. Virginia Department of Emergency Management Situational Awareness Unit
6. Food Rapid Response Team Lead

The data from the tool is also compiled into a dashboard that members of the Virginia Emergency Support Team can access at any time, as shown in the following example.



When an update is available or any adverse impacts are resolved, the field office will update the entry in the *Online Reporting Tool*. An automated email is sent to the same contacts as the initial email.

### **3.2. Area-Wide Events**

When an area-wide event occurs or is expected to occur, the Central Office *or* Field Office Director can initiate reporting at their discretion. Once the Central Office or Field Office Director notifies the field office of a reporting requirement, the field office staff will initiate contact with community waterworks, collect status updates, and report this information to the Field Office Director, Field Office Deputy Director, Emergency Services Coordinator, ODW Director, and ODW Deputy Director by email. The Emergency Services Coordinator or other requesting individual will set reporting deadlines on an event-by-event basis, as determined by VDEM or other requesting parties. Area-wide event reports should include actions the field office have taken to prepare for an event, anticipated impacts reported by the waterworks, actual impacts not rising to the level of the Reporting Tool, and requests for assistance from the waterworks.

#### ***3.2.1. Contacting Community Waterworks***

At the discretion of the Field Director or upon notification from the Central Office, field staff must contact potentially impacted or impacted community waterworks to determine their current “operational” status. Field office staff should begin with impacted waterworks, potentially impacted waterworks, and waterworks that have had a history of outages due to similar events.

Once a waterworks has reported “no impacts,” there is no need to continue to contact them unless staff becomes aware of new problems related to the incident (e.g., a local flood persisting days after a hurricane). Field Staff must continue to contact water systems reporting current or potential impacts **daily** until they report “no impacts,” unless directed otherwise.

#### ***3.2.2. Notification of Impacts***

The field office will submit notifications for each affected system via the *Online Reporting Tool* using the instructions in Section 7. If an event causes no water system impacts, the field office will email the ESC with a negative report. If no new problems arise related to the incident, the field office may cease contacting waterworks at this time. However, if an event is ongoing or new problems arise, the field office will continue contacting water systems **daily** until there are no new problems related to the event (e.g., flooding after a hurricane, earthquake aftershocks, etc.). If you are unsure of whether or not to continue contacting waterworks, consult your Field Office Director or the Emergency Services Coordinator for guidance.

### **3.3. Requests for Assistance**

ODW field staff will instruct any waterworks making specific requests for assistance (aside from technical assistance that ODW can provide) to contact their locality’s Emergency Manager. The Virginia Department of Emergency Management (VDEM) maintains an

updated [directory of local emergency managers](#) on their website. If the local Emergency Manager is unavailable or unresponsive, direct the waterworks to contact VDEM's State Emergency Operations Center directly at (804) 674-2400. VDEM staffs this hotline 24/7.

Field office staff will also report any resource needs by updating the "Additional Details" field in the *Online Reporting Tool*, or by email to the ESC if a Reporting Tool entry is not appropriate. The Emergency Services Coordinator tracks the resource need and ensures that it is fulfilled.

#### **4. Emergency Staffing**

The Central Office and field offices will make the necessary arrangements (e.g., work schedule changes, shifts assignments, weekend assignments, prior approval for overtime, etc.) before an incident to ensure the emergency notification requirements can be met, and also to maintain the reporting requirements established in this document on weekends and holidays unless otherwise directed.

#### **5. After-Hours Emergencies**

##### **5.1. Field Office Contacts**

Each field office will maintain multiple emergency contacts with a goal of responding to emergencies within **one hour** of notification. Each field office will maintain a phone line for after-hours emergencies, and will designate a Duty Officer as the after-hours point of contact. The field office can rotate the contact assigned to the emergency line. This can be accomplished by physically passing the phone to a new Duty Officer, or forwarding the emergency line to an employee's phone.

Each field office will also designate two backup contacts should the Duty Officer not respond. These are traditionally the Director and Deputy Director for the field office, but field offices can assign these contacts as they see fit.

The Emergency Services Coordinator will notify a field office of an after-hours emergency using the Health Alert Network (HAN). HAN will send three calls and/or text messages to the Duty Officer within a fifteen-minute period. If the Duty Officer does not acknowledge the message within fifteen minutes, the notification will be escalated to the Field Office's second-tier contact. If that contact does not acknowledge the message within fifteen minutes, the notification will be escalated to the Field Office's third-tier contact.

Employees are not expected to be at their phones 24/7. The goal of having three contacts and escalating every fifteen minutes is to ensure someone is able to respond within the target hour, **not** to penalize employees for not being immediately available.

##### **5.2. Central Office Contacts**

The Central Office's after-hours emergency contact is the Emergency Services Coordinator. The Emergency Services Coordinator is on call at all times and will respond to messages within **one**

**hour** of receipt. If the Emergency Services Coordinator will be unavailable, then the Emergency Services Coordinator will designate an alternate contact in advance and note that designation on the Controlling Calendar, Emergency Services Coordinator’s voicemail message, and Emergency Services Coordinator’s out-of-office email responder. If the Emergency Services Coordinator cannot be reached and no alternate contact is designated, call 877-275-8343 and ask for the Office of Drinking Water for assistance.

**6. Additional Requirements for Area-Wide Events**

During an area-wide event, each field office will have a primary point of contact during each work shift to streamline communications. At least one alternate contact should be courtesy copied on all emails and made aware of the location of all data to ensure continuity of operations.

**7. VDH-ODW Water Advisory and Power Outage Online Reporting Tool**

The *Online Reporting Tool* is a Survey123 form hosted by VDEM. Each field office has unique credentials to access and fill in the report. If you are unsure of your office’s credentials, contact your Field Office Director or the Emergency Services Coordinator.

The required elements of information for an initial notification are as follows:

1. Utility Name	9. How was the advisory distributed?
2. Date/Time of Incident	10. ODW Actions Taken to Resolve Issue
3. City/County	11. Electrical Power Status
4. PWS ID Number ( <i>optional</i> )	12. If none or partial, does the facility have generator power?
5. Type of Advisory	13. Submitted By
6. Were Samples Taken?	14. Field Office Point of Contact
7. If Yes, Sampling Date(s)	15. Point of Contact Phone Number
8. Expected Time for Restoration	16. Point of Contact Email ( <i>optional</i> )

Timely reporting is critical in an emergency situation. Field staff should collect as much information as is feasible before submitting an initial report, but not unnecessarily delay a report by waiting for information. It is acceptable to mark an item of information as “unknown” and return to it in an update once the field office is able to gather the information.

Users can report updates and system restoration using the same link. When reporting a system restoration, users must enter the date and time of restoration. Details related to the restoration should be included in the “Additional Details” field.

**8. Event-Specific Reporting Requirements**

Depending on the nature of the event, additional reporting requirements may apply. The Emergency Services Coordinator will notify the Field Office Director if any of the following are required for a given event:

- Drought Restriction Tracking  
This tracking sheet includes the number and type of drought restrictions in place, the impacted population, and the impact on source quantitation levels at regulated

waterworks. The information is shared with the state Drought Monitoring Task Force. Drought reporting spreadsheets are located in: Y:\05-Incidents\504-Droughts.

➤ Special Sampling Tracking

This tracking sheet collects information on non-routine sampling in which the cost is borne by ODW. The samples are usually for investigative, complaint, or other purposes. Collecting this information may allow for reimbursement of sampling costs during a disaster declaration. The Special Sampling Log is located in: Y:\05-Incidents\501-Status Reports.

## **9. Links**

- VDH-ODW Water Advisory and Power Outage Online Reporting Tool:  
<https://vdemgis.maps.arcgis.com/apps/opsdashboard/index.html#/0b9c0cd8a518407ca0a6debba4554cb5>
- VDEM Directory of Local Emergency Managers:  
<https://lemd.vdem.virginia.gov/Public/>
- Drought Restriction Tracking: Y:\05-Incidents\504-Droughts
- Special Sampling Tracking: Y:\05-Incidents\501-Status Reports

## Chapter 7 – Assessments, Sanitary Defects, and Corrective Action

### Summary

The Revised Total Coliform Rule (RTCR) specifies two levels of coliform treatment technique (TT) triggers and corresponding levels of assessment (Level 1 and Level 2) in response to those triggers. The degree and depth of inquiry to which a waterworks must be examined, including monitoring and operational practices, depends on the potential impact of the TT triggers to public health. A Level 2 assessment requires a more in-depth and comprehensive review of the waterworks compared to a Level 1 assessment. The waterworks owner must identify and correct all sanitary defects during the 30-day assessment period. The owner must identify any unresolved sanitary defects not corrected during the 30-day assessment period and schedule completion in accordance with a schedule approved by the Office of Drinking Water (ODW) Field Office.

Under the RTCR, the routine monitoring period can be either monthly or quarterly, based on the type of waterworks under consideration. Routine bacteriological monitoring for community and nontransient noncommunity (NTNC) waterworks is conducted monthly (i.e., the monitoring period), whereas for transient noncommunity (TNC) waterworks serving 1,000 or fewer persons using groundwater only or that are consecutive waterworks, routine monitoring is typically required quarterly (i.e., the monitoring period). Under special circumstances and conditions, TNC waterworks may be considered for monitoring on an annual frequency. (See 12VAC5-590-370 A 9 for additional details).

In some cases, the collection of repeat samples may encroach into the next month or quarter, but the monitoring period remains unchanged.

### 1. Coliform Treatment Technique Triggers

All waterworks are required to collect total coliform samples in accordance with their approved and most up-to-date bacteriological sample siting plan (BSSP). ODW collectively evaluates both valid routine and repeat total coliform sample results to determine whether the waterworks has exceeded a TT trigger. An exceedance requires the completion of an assessment depending on the type of TT trigger. Flow chart 1 outlines the general relationships involved in bacteriological monitoring under the RTCR.

A waterworks has exceeded the TT trigger if any of the following conditions are met:

#### **1.1. Level 1 TT Triggers**

See 12VAC5-590-392 B 1.

- For waterworks taking 40 or more samples (including routine and repeat samples) per month, the waterworks exceeds 5.0% total coliform-positive samples for the month (or monitoring period).
- For waterworks taking fewer than 40 samples (including routine and repeat samples) per month, the waterworks has two or more total coliform-positive samples in the same month (or monitoring period).

- The waterworks fails to take every required repeat sample after any single routine total coliform-positive sample.

Note: Repeat samples collected outside a given month are credited to the month that the originating positive sample was collected in.

### 1.2. Level 2 TT Triggers

See 12VAC5-590-392 B 2.

- The waterworks incurs an *E. coli* PMCL exceedance.
- The waterworks has a second Level 1 TT trigger within a rolling 12-month period, unless the likely cause for the total coliform-positive samples triggering the initial Level 1 TT trigger was identified during the prior assessment process, and ODW concurred that the waterworks has corrected the problem.

### **2. Level 1 and Level 2 Assessments**

An assessment is an evaluation to identify the possible presence of sanitary defects (as defined in Section 3 of this chapter), possible improper coliform monitoring practices in the distribution system, and the likely reason that triggered the assessment. Flow charts 2 and 3 outline the considerations involved leading up to the level of assessment required. The table below provides a general strategy for conducting triggered assessments. This progression is the same for both Level 1 and Level 2 assessments, with the Level 2 assessment requiring a greater level of investigative effort by the assessor. See 12VAC5-590-392 C.

<b>Action to be Taken</b>	<b>Details of the Activity</b>
STEP 1: Assess location of the positive sample(s)	<ul style="list-style-type: none"> <li>➤ Check sample results</li> <li>➤ Check sample sites</li> <li>➤ Check sampling protocol</li> </ul>
STEP 2: Assess service area within the distribution system in the vicinity of the positive samples(s)	<ul style="list-style-type: none"> <li>➤ Review operational data</li> <li>➤ Review water quality data</li> <li>➤ Review operational activities</li> <li>➤ Review unusual activities</li> <li>➤ Assess distribution system components (e.g., pipes, valves, pumps, etc.)</li> <li>➤ Assess storage facilities</li> </ul>
STEP 3: Assess treatment facilities	<ul style="list-style-type: none"> <li>➤ Assess treatment facility closest to the location of the positive sample(s)</li> </ul>
STEP 4: Assess source water (in use at the time, which may have contributed to the positive results)	<ul style="list-style-type: none"> <li>➤ Assess wells</li> <li>➤ Assess springs</li> <li>➤ Assess surface water</li> </ul>

## 2.1. Level 1 Assessments

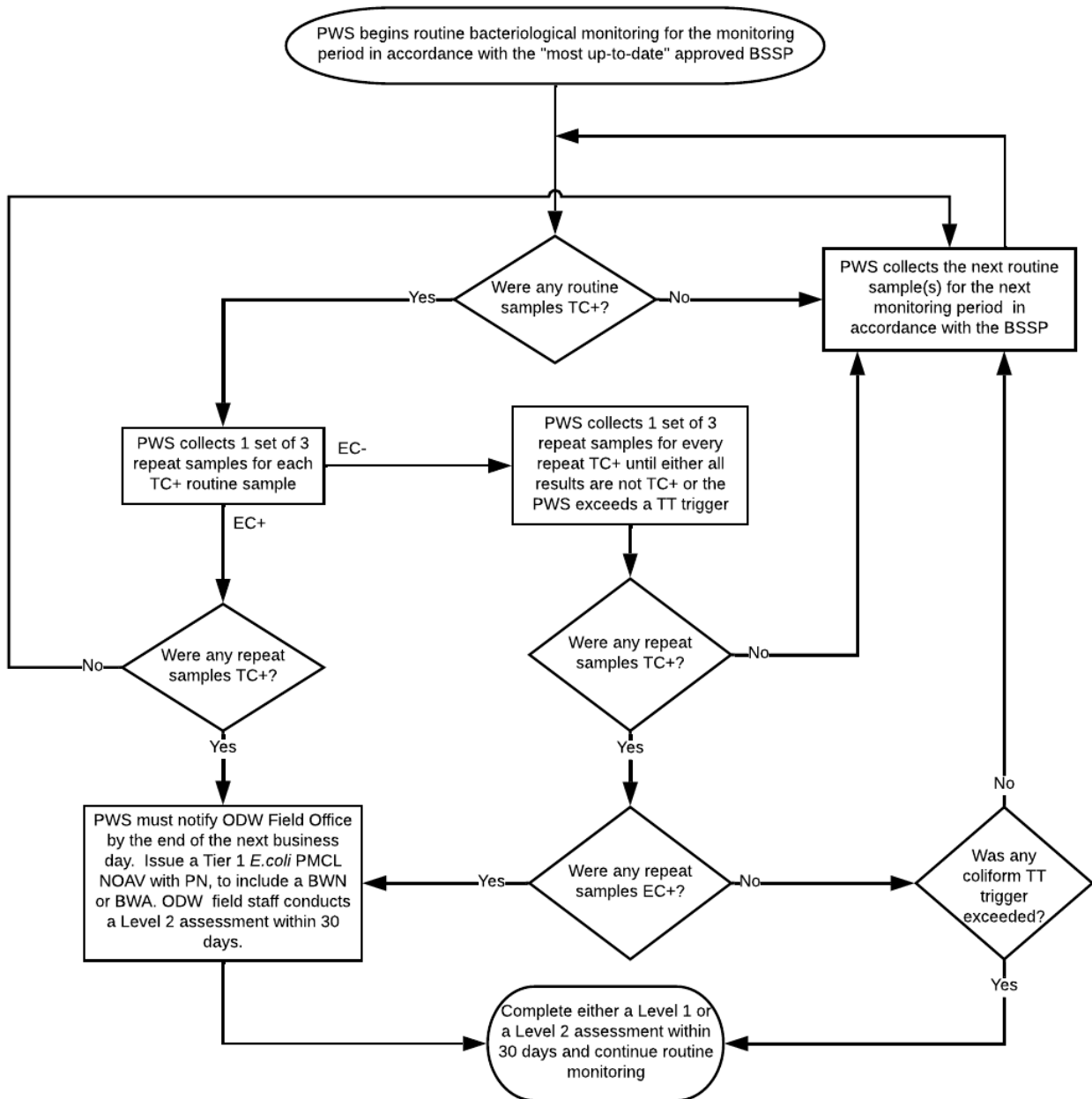
A Level 1 assessment must be conducted when a waterworks exceeds any of the Level 1 TT triggers described in Section 1.1 of this chapter. (See also flow chart 2 and FM-C7-Attachment 7). It is typically a self-assessment by the owner (or owner's representative). However, with the concurrence of the District Engineer, ODW staff who have undertaken the ODW's sanitary survey training program or similar training may conduct the Level 1 assessment.

A Level 1 assessment typically consists of a basic examination of the assessment elements, such as sample collection procedures or technique, sample collection sites, source water, treatment, storage, distribution system, and relevant operational practices, often using existing data and information. The owner should evaluate conditions that could have caused the total coliform-positive sample. The assessor must use a Level 1 assessment form (FM-C7-Attachment 1) to meet this requirement.

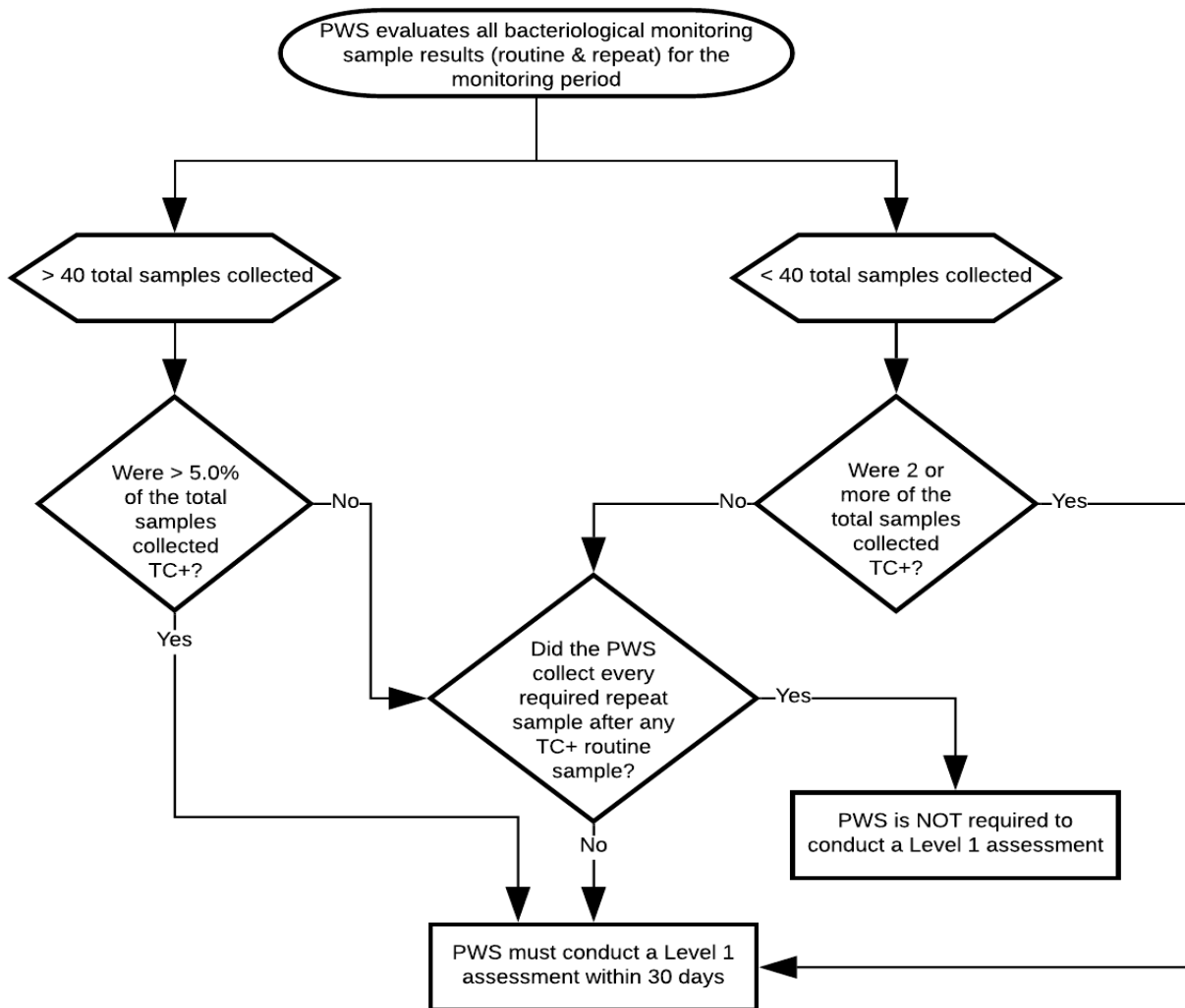
Example conditions include treatment process interruptions (where applicable); low or loss of system pressure; maintenance activities, such as replacement of the well pump or other waterworks appurtenances, water line repair; recent operational changes, etc. In addition, the owner should evaluate the method of sample collection, condition of sample sites, the distribution system, storage tanks, source water facilities, etc.

A Level 1 assessment is to be conducted by a responsible party of the waterworks (e.g., a licensed operator for a community or NTNC waterworks, or a manager for a TNC waterworks). The assessor must be someone familiar with the waterworks to be able to answer the questions in the Level 1 assessment form or gather information from others who work for the waterworks. A Level 1 assessment can be performed by an individual who does not have a waterworks operator license (e.g., TNC waterworks owner or staff); however, an individual without a license may need to consult with someone who has more expertise to conduct the assessment. The owner may elect to use the services of technical assistance providers, consult with operators at other waterworks, or consult with ODW. For very small waterworks, such as those with a limited distribution system, ODW could assist the owner in completing the assessment, either via telephone or by conducting the assessment, as determined to be necessary by the field office.





**Legend/Notes:**  
 BSSP=Bacteriological Sample Siting Plan; PWS=Public Water System; TC=Total Coliform ; EC=*E. coli*; NOAV=Notice of Alleged Violation; PN=Public Notice; TT=Treatment Technique; ODW=Office of Drinking Water; BWN=Boil Water Notice; BWA=Boil Water Advisory.  
 Routine bacteriological monitoring period can be either monthly, quarterly, or annually depending on the type of waterworks.



**Legend/Notes:**

PWS=Public water system; TC=Total coliform.

In determining whether there is an exceedance of a Level 1 treatment technique trigger, use rounding in the evaluation; e.g., 5.05% is rounded up to 5.1%, which is a violation.

Routine bacteriological monitoring period can be either monthly or quarterly depending on the type of waterworks.

*Flow Chart 1. General Concept of Bacteriological Monitoring Under the Revised Total Coliform Rule (RTCR).*

*Flow Chart 2. Level 1 Assessment Treatment Technique (TT) Trigger.*

ODW will send a “Level 1 Assessment Required” letter (FM-C7-Attachment 2) to the owner or administrative contact as soon as ODW is aware of a Level 1 trigger condition. (ODW will use email notifications, sample result information, and the SDWIS Compliance Determination Module to become aware of treatment technique trigger occurrences.) The owner is to complete the assessment and submit it to ODW within 30 days of the date of the notification letter.

ODW shall review the corrective actions listed by the owner for completeness and shall consult with the owner in the event the schedule shows incomplete corrective actions within the 30 calendar days. (All corrective actions are linked to a mutually agreed upon plan with schedule derived through consultation between field staff and waterworks owner. Incomplete actions may be rescheduled with concurrence from the field staff. All corrective action tracking is done through SDWIS.)

## 2.2. Level 2 Assessments

Level 2 assessments will be conducted by the ODW field office staff, must include a site visit, and must be documented with the Level 2 assessment form (FM-C7-Attachment 3). A Level 2 assessment must be conducted when a waterworks exceeds any of the Level 2 TT triggers described in Section 1.2 of this chapter. (See also flow chart 3).

ODW will use email “alert” notifications and sample result information plus the SDWIS Compliance Determination Module to identify and act upon TT trigger occurrences.

If an *E. coli* PMCL exceedance occurs, ODW will send a combined “PMCL Notice of Alleged Violation and Level 2 Assessment Requirement” letter (FM-C7-Attachment 4) to the owner or administrative contact. If a second Level 1 TT trigger occurs within a rolling 12-month period, ODW will send a “Level 2 Assessment Required” letter (FM-C7-Attachment 5) to the owner or administrative contact.

ODW field office staff assigned to conduct the Level 2 assessments will have at least one year of experience in performing sanitary surveys of waterworks of similar size and complexity, and shall have:

- The ability to identify pathways of microbial contamination;
- An understanding of the nature of the coliform group and *E. coli*, including its sources, control, and public health significance;
- A familiarity with bacteriological sampling practices;
- The ability to interpret distribution system water quality data, distribution system operational data, and water source data; and
- An understanding of disinfection practices and the potential implications of changes in disinfection practices.

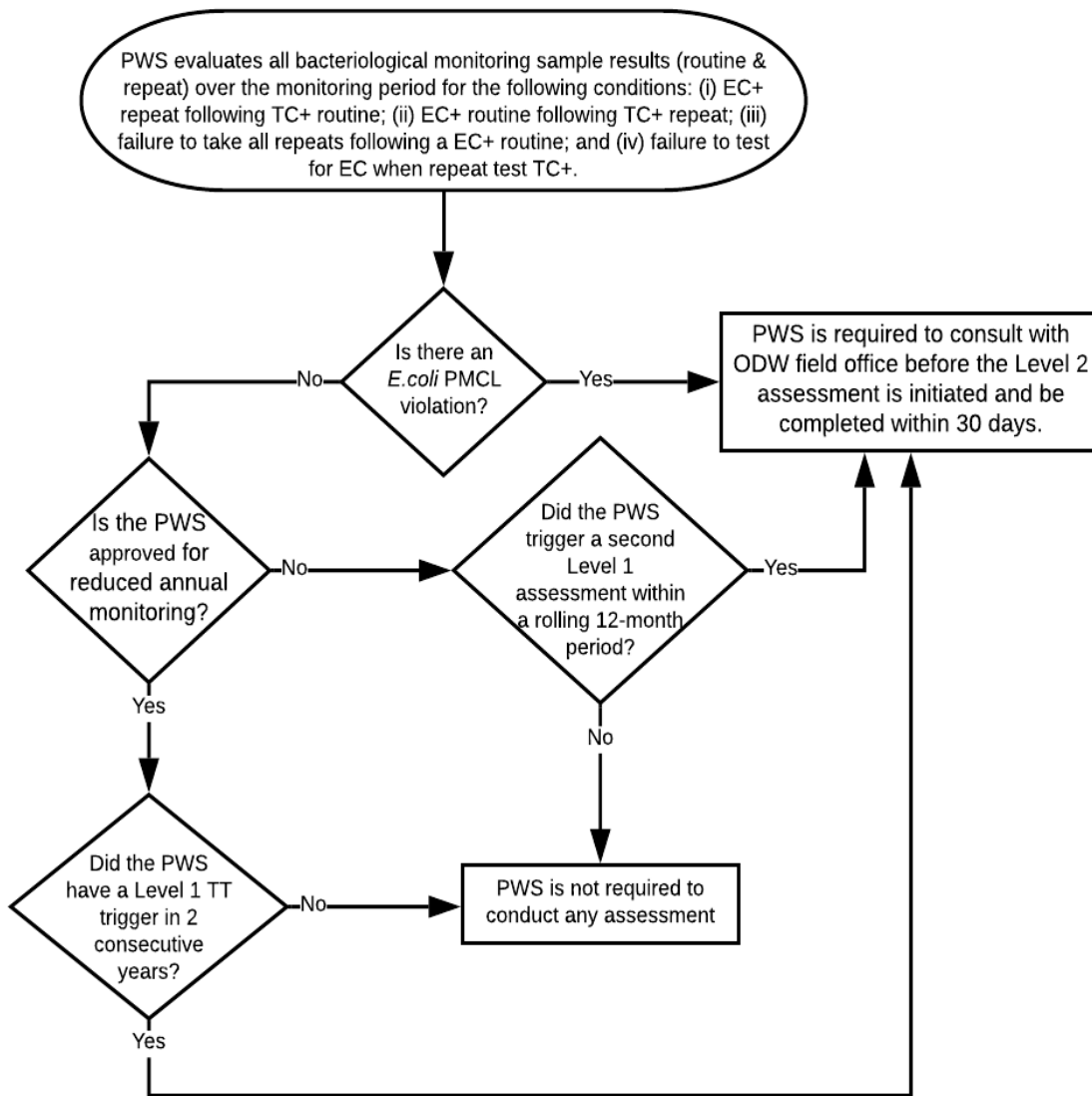
Note: For field staff having prior “experience credit” entering ODW employment, the Field Office Director can consider an exception to the “one year experience” requirement. In addition, staff with just a year of experience may be accompanied by an experienced “staff mentor” on a Level 2 assessment.

The Level 2 assessments must be completed within 30 calendar days of the condition that triggered the assessment, not within 30 days of the Level 2 Assessment Required letter. Note: The “clock” for the 30-day requirement starts after the owner learns that a trigger has been exceeded. In the case of an *E. coli* PMCL exceedance, which indicates an acute risk to public health, the site visit to complete the assessment must be assigned the highest priority for

*completion.* The field office will give the owner seven (7) calendar days from the date of the letter (FM-C7-Attachment 6) to return either the form with a signature acknowledging concurrence that no corrective action is required or the signed corrective action schedule. (The time frame stands because of the seriousness of a Level 2 assessment. Expediting the documentation by using email is an excellent practice.) Consultation between the owner and ODW is essential during the assessment process that includes the site visit and formulation of a corrective action schedule.

### **3. Sanitary Defects**

A “sanitary defect” is a condition that could provide a pathway of entry for microbial contamination into the distribution system or that is indicative of failure or imminent failure in a barrier that is already in place. (12VAC5-590-10) (See FM-C7-Attachment 7 for a listing of common sanitary defects and their likely explanation). It could represent a breach in the distribution system, other facilities (source, storage, etc.) or operational practices whereby the microbial contamination can enter the treated/finished water and be transported to customers, potentially resulting in adverse health effects. Therefore, ODW, assessors, and the owner must work together to identify and correct sanitary defects. The following table is not an exhaustive or binding list, and ODW may determine that there may be other “unusual” circumstances, and can regard them as a “sanitary defect.” (This list may be shared with small “less-experienced” waterworks to facilitate completion of the Level 1 assessment.) Sanitary defects may be the same as significant deficiencies; the difference is the procedure used to identify them. Sanitary defects are identified during the Level 1 or Level 2 assessments. Significant deficiencies are identified during a sanitary survey.



**Legend/Notes:**

PWS=Public water system; EC=*Escherichia coli*; TC=Total coliform; TT=Treatment technique; PMCL=Primary maximum contaminant level; ODW=Office of Drinking Water.

**Note:** A PWS will not need to conduct a Level 2 assessment if ODW has determined a likely reason for the TC+ samples that caused the first Level 1 assessment TT trigger and has established that the waterworks has corrected the problem.

Routine bacteriological monitoring period can be either monthly or quarterly depending on the type of waterworks.

*Flow Chart 3. Level 2 Assessment Treatment Technique (TT) Trigger.*

Sanitary Defect	Explanation
Cross-connection & backflow issues	<ul style="list-style-type: none"> <li>✓ Required cross connection control devices not in place or not operating properly</li> <li>✓ Unprotected cross connection</li> <li>✓ Unauthorized connections to water mains/hydrants</li> </ul>
Operational issues	<ul style="list-style-type: none"> <li>✓ Failure to follow Standard Operating Procedures (SOPs) that protect distribution system integrity and sanitary condition</li> <li>✓ Inadequate disinfection during and after pipe repair/replacement activities</li> <li>✓ Failure to monitor and replace chlorine supply</li> <li>✓ Improper/Inadequate chlorine residual measurements</li> <li>✓ Sample collection and transportation problems</li> <li>✓ Failure to follow sample siting plan</li> <li>✓ Use of unapproved or untested source of water</li> <li>✓ Untrained sample collector</li> </ul>
Distribution system issues	<ul style="list-style-type: none"> <li>✓ Inadequate inspection and maintenance of distribution system</li> <li>✓ Loss of distribution system integrity (e.g., main breaks)</li> <li>✓ Failure to maintain adequate pressure or low pressure event</li> <li>✓ Pump failure</li> <li>✓ Supervisory control and data acquisition (SCADA) and control issues</li> <li>✓ Improper or lack of flushing operations</li> <li>✓ Improper construction of new, replaced or renovated lines or service connections</li> </ul>
Storage issues	<ul style="list-style-type: none"> <li>✓ Overflow, vents, hatches and other penetrations not configured, screened or sealed properly</li> <li>✓ Holes in tanks that could allow entry of insects or small animals</li> <li>✓ Leaks in tanks that could be harboring growth</li> <li>✓ Waterlogged bladder or hydropneumatic pressure tanks</li> <li>✓ Inadequate inspection and maintenance of storage facilities</li> <li>✓ Inadequate disinfection during and after pipe repair/replacement activities</li> </ul>
Source water issues	<ul style="list-style-type: none"> <li>✓ Cracks or holes in well seals or casings</li> <li>✓ Leaking sewer lines or septic tanks</li> <li>✓ Sewage overflow upstream of the source</li> <li>✓ Lack of wellhead protection</li> <li>✓ Unsanitary conditions at the wellhead</li> <li>✓ Contamination during pump or motor repair or replacement</li> <li>✓ Watertight seal at wellhead not present</li> </ul>
Disinfection issues	<ul style="list-style-type: none"> <li>✓ Inability to maintain disinfectant residual throughout the distribution system</li> <li>✓ Failure of disinfection equipment</li> <li>✓ Improper settings on chemical feed</li> <li>✓ Failure in redundant disinfection</li> </ul>

Sanitary Defect	Explanation
	✓ Loss of power

**4. Corrective Actions**

Corrective action is required when an assessor has identified one or more sanitary defects. All owners are required to correct any sanitary defect identified during an assessment. A schedule of corrective action(s) is required for any sanitary defect not corrected either before the submittal of a Level 1 assessment form or completion of a Level 2 assessment site visit by ODW. (See 12VAC5-590-392 D.). These actions are to be stipulated in a Corrective Action Plan (CAP) mutually agreeable to the owner and ODW. Each required corrective action should be added as a scheduled activity documented in SDWIS under the assessment's compliance schedule. CAPs should be tracked for compliance. CAPs are enforceable, so enforcement action is an option for field staff if the waterworks owner is recalcitrant. The owner should complete the corrective action listed in the Level 1 assessment form within 30 calendar days of submittal of the form. If not, ODW shall consult with the owner to formulate a mutually agreeable schedule to complete the correction action(s) in a timely manner. In addition, the owner shall resubmit the Level 1 assessment form with the updated completion date.

The Level 2 assessment schedule of corrective actions should also aim for completion dates within 30 calendar days of submitting the schedule to the owner. ODW and the owner must consult to establish a mutually agreeable completion date if the action cannot feasibly be completed within 30 calendar days. The owner is to notify ODW, in writing, no later than seven (7) days after completion of each corrective action. Notification may be in the form of a letter, email, or fax.

**5. Determination of Requirements Due to Multiple Assessment Triggers**

In general, a waterworks owner (or ODW) should not be penalized with requirements to perform an additional Level 1 or 2 assessment when a waterworks is in the midst of making corrective actions per an ODW-approved corrective action schedule. The RTCR requires a waterworks to continue monthly compliance monitoring during the corrective action(s) phase of the process (i.e., the elimination of a contamination pathway). The collection of compliance samples in a subsequent monitoring period before completion of the corrective actions will often result in additional positive TC samples and coliform treatment technique triggers. Performing an additional assessment is generally a misuse of resources before fixing an identified problem. In addition, corrective actions should also include collection of special samples to confirm a ‘fix’ of the identified problem. Consequently, the results of compliance monitoring performed before completion of a corrective action should not generate an additional assessment requirement or elevation to a Level 2 assessment until it has been determined that the corrective action has not eliminated the contamination or contamination pathway.

**Appendix**

- FM-C7-Attachment 1. Level 1 Assessment Form
- FM-C7-Attachment 2. Notification of Level 1 Assessment Required
- FM-C7-Attachment 3. Level 2 Assessment Form
- FM-C7-Attachment 4. NOAV + Notification of Level 2 Assessment Requirement
- FM-C7-Attachment 5. Notice of Level 2 Assessment Required

FM-C7-Attachment 6. Level 2 Assessment Transmittal Letter for Concurrence  
FM-C7-Attachment 7. Common Sanitary Defects and Their Likely Explanation



## Chapter 8 - Seasonal Waterworks and Waterworks with Seasonal Components

### Summary

The *Waterworks Regulations* define a “seasonal waterworks” as “a noncommunity waterworks that is not operated as a waterworks on a year-round basis, and starts up and shuts down at the beginning and end of each operating season.” (12VAC5-5980-10.) Seasonal waterworks must have an approved start-up procedure before commencing operations for the public, which must include the collection of two special bacteriological samples taken a minimum of 16 hours apart, from a sample site listed in the “most up-to-date” approved Bacteriological Sample Siting Plan (BSSP) (see *Sampling Manual*). These samples must test negative (consecutively) for the presence of total coliforms before water is served to the public. Since seasonal waterworks are a significant part of the Revised Total Coliform Rule (RTCR), inventory and operational information must be tracked in the Safe Drinking Water Information System (SDWIS).

### 1. Monitoring Requirements

All seasonal waterworks including those with seasonal components must conduct bacteriological monitoring on a monthly frequency in accordance with the “most up-to-date” approved BSSP. (12VAC5-590-370 A 12 b). In cases where the population may vary during the monitoring period, the number of samples must be adjusted accordingly upon concurrence by the District Engineer. The number of samples to be collected is based on the population served in accordance with the *Waterworks Regulations*.

### 2. Seasonal Start-up Provisions

All seasonal waterworks must establish a Start-up Procedure before commencing operations for the start of the season. (See 12VAC5-590-370 A 12 a.) It is recommended that the waterworks owner use FM-C8-Attachment 1 as the basis for developing the start-up procedure. (If the waterworks consists of components that are operated on a seasonal basis, a start-up procedure will be required separately for those components of the waterworks; see Section 3 of this chapter.) Guidance on disinfection procedures is provided in FM-C8-Attachment 2. Once completed, the Office of Drinking Water (ODW) field staff will use FM-C8-Attachment 3 to review the start-up procedures for adequacy. Following review by the field staff, if the start-up procedures are satisfactory, then FM-C8-Attachment 4 is used to issue approval to the waterworks. The waterworks owner must implement this approved start-up procedure before beginning operations. After completing the start-up procedure, the owner/operator must:

- Collect two consecutive bacteriological water samples, identified as “special,” a minimum of 16 hours apart, from an approved bacteriological sample site and submit the samples to DCLS or a laboratory certified by DCLS to perform the total coliform presence/absence analysis. (For existing waterworks using DCLS, the sample kits are automatically invoiced; for new waterworks choosing to use DCLS, field staff may need to place an *ad hoc* order.) These samples must indicate the absence of total coliforms before commencing operations. Furthermore, these samples are not to be included in the routine monitoring and compliance determination under the RTCR; and

- Submit a copy of the “special” bacteriological sample results along with the signed certification form (FM-C8-Attachment 5) to ODW field staff.

Only after the signed certification form is received and the two consecutive bacteriological samples tested show the absence of total coliforms will the waterworks be allowed to start serving water to the public.

### **3. Waterworks with Seasonal Components**

Some waterworks operate a portion of their components (areas of distribution piping, in particular) on a seasonal basis due to cyclic business conditions or lack of freeze protection safeguards. ODW is requiring any owner that seasonally operates a portion of the waterworks to establish a start-up procedure (FM-C8-Attachment 6) to include the special bacteriological sampling and the submittal of a start-up procedures certification form (FM-C8-Attachment 7). Once ODW has identified such waterworks with both “full” and “partial” operational characteristics, the Waterworks Description Sheet must be amended where warranted to document these out-of-season components. The special practices with these components should be highlighted in the BSSP. The objective generally is to have the Operation Permit reflect the infrastructure and mode of operation as best as possible.

#### **Important Notes:**

- A waterworks with seasonally operated components is subject to the same requirements and compliance determinations as a waterworks that operates fully seasonal.
- Per 12VAC5-590-370 A 12 c, the ODW may “waive any seasonal waterworks from some or all of the requirements for seasonal waterworks if the entire distribution system remains pressurized during the entire period that the waterworks is not operating.”
- Failure to complete seasonal start-up component procedures is a treatment technique violation and requires the owner to provide a Tier 2 public notice, and is a state violation, code D1.
- Failure to submit a start-up procedure certification form is a reporting violation and requires the owner to provide a Tier 3 public notice, and is a state violation, code D2.

### **4. Reporting and Recordkeeping**

Additional reporting and recordkeeping requirements for seasonal waterworks include those similar for the other classifications of waterworks. Operational activities of seasonal waterworks, such as review and approval of the start-up procedure, certification of start-up completion, etc., need to be tracked in SDWIS as required under the Revised Total Coliform Rule (RTCR). (See *Data Management Manual* for further guidance.)

### **5. Noncompliance with Corrective Action Plans**

Corrective action plans (CAPs) are enforceable. When a scheduled action is not achieved, the field staff may re-schedule the completion date after consultation. However, in cases when the waterworks owner is recalcitrant, an enforcement proceeding can be pursued. Field staff should consult with the central office for guidance. For additional guidance, refer to Chapter 14 of this manual.

**Appendix**

FM-C8-Attachment 1. Full Seasonal Waterworks Start-up Procedures

FM-C8-Attachment 2. Seasonal Waterworks Start-up Disinfection Procedures.

FM-C8-Attachment 3. Review Sheet – Seasonal Waterworks Start-up Procedures

FM-C8-Attachment 4. Approval Letter - Seasonal Waterworks Start-up Procedures

FM-C8-Attachment 5. Certification Form - Full Seasonal Waterworks

FM-C8-Attachment 6. Partial Seasonal Waterworks Start-Up Procedures

FM-C8-Attachment 7. Certification Form - Partial Seasonal Waterworks

## Chapter 9 - Treatment Technique (TT) Requirements

### **Background**

To ensure drinking water safety, waterworks are required to test their water for contaminants on a regular basis. All waterworks must provide adequate treatment when required to ensure the production of potable water. To guide this process, drinking water standards – by way of the National Primary Drinking Water Regulations (NPDWRs) – are established in the form of primary maximum contaminant levels (PMCLs), secondary maximum contaminant levels (SMCLs), maximum residual disinfection levels (MRDLs), action levels (ALs), and treatment techniques (TTs). This chapter addresses TTs only, and they apply to all waterworks using both groundwater and surface water (including groundwater under the direct influence of surface water (GUDI) sources), or both, specifically in accordance with the following EPA Rules:

<b>EPA Rule Acronym</b>	<b>Brief Description of Rule</b>	<b>Additional Reference (40 CFR Part 141)</b>
SWTR	Surface Water Treatment Rule	Subpart H
LCR	Lead and Copper Rule	Subpart I
D/BPR	Disinfectants/Disinfection Byproducts Rule	Subpart L
IESWTR	Interim Enhanced Surface Water Treatment Rule	Subpart P
GWR	Ground Water Rule	Subpart S
LT1ESWTR	Long Term 1 Enhanced Surface Water Treatment Rule	Subpart T
LT2ESWTR	Long Term 2 Enhanced Surface Water Treatment Rule	Subpart W
RTCR	Revised Total Coliform Rule	Subpart Y

### **Notes:**

*Subpart H: Filtration and disinfection in all surface water treatment waterworks*

*Subpart I: Control of lead and copper in all community and nontransient noncommunity (NTNC) waterworks*

*Subpart L: Disinfectant residuals, disinfection byproducts, and disinfection byproduct precursors in all water treatment facilities using disinfection treatment*

*Subpart P: Enhanced filtration & disinfection in all surface water treatment waterworks serving  $\geq 10,000$  people*

*Subpart S: Groundwater monitoring and treatment in all groundwater waterworks*

*Subpart T: Enhanced filtration & disinfection in all surface water treatment waterworks serving  $< 10,000$  people*

*Subpart W: Enhanced treatment for *Cryptosporidium* in all surface water treatment waterworks*

*Subpart Y: Bacteriological monitoring, treatment technique triggers, and assessments in all waterworks*

Some TTs may fall into the following two categories:

- (i) Those associated with the GWR specifically apply to waterworks using groundwater source(s), which may involve the provision of 4-log virus removal/inactivation and compliance monitoring based on a confirmed *E. coli* presence in the source water(s).
- (ii) Those associated with the SWTR and the extended rules (Subparts P, T, and W) specifically apply to waterworks using either a surface water source or a GUDI source, or both. In this category, the potential exists for a wide range of source water quality conditions. Since Virginia's *Waterworks Regulations* do not allow for the avoidance of filtration, these waterworks must

provide filtration and disinfection treatment and the operational oversight (i.e., mandatory recordkeeping and reporting requirements) to assess whether the filtration and disinfection processes are satisfactorily practiced. TTs associated with filtration are evaluated based on the turbidity assigned to the filtration process utilized in the water treatment scheme. TTs associated with disinfection are based on the application of a disinfectant(s) and the evaluation of the adequacy of disinfection using CT (concentration dose x contact time) criteria or other methods. The CT criteria are used as a measure of the efficacy of treatment and consequently the “safety and potability” of the finished drinking water. The *Waterworks Regulations* provide tables for the log inactivation of *Giardia lamblia* and viruses which are achieved at various CT levels by free chlorine, chlorine dioxide, chloramines, and ozone. Inactivation of viruses achieved by UV absorbance are also included. Effectiveness of CT is assessed based on the comparison of “CT Required *versus* CT Actual”. Compliance is achieved when “CT Required  $\leq$  CT Actual”.

A TT is an enforceable procedure. It is a level of technological performance that waterworks must follow in treating their water to ensure control of a specific contaminant. Typically, a TT is a requirement based on a technology or process, that was demonstrated to the satisfaction of the Office of Drinking Water (ODW), that leads to a reduction in the level of a specific contaminant sufficient to achieve compliance with the regulatory requirements (40 CFR Part 141). Failure to continuously maintain a TT is a Tier 2 violation requiring public notification (except when ODW determines that a Tier 1 notice is required).

### **1. Treatment Technique Assignments**

Each of the aforementioned EPA rules have assigned TT requirements. When EPA promulgates a NPDWR, it lists recommendations or “best available technologies (BATs)” for drinking water treatment processes, which, when properly implemented, leads to the likely attainment of the standards set forth in the NPDWR. To be a BAT, the TT must meet several criteria such as having demonstrated consistent removal of the target contaminant under field conditions. The purpose of a treatment method feasibility review is to ascertain technologies that meet BAT criteria with the objective of lowering PMCLs.

Table 1 summarizes all TTs and the applicable regulations associated with them.

<b>Table 1. Drinking Water Treatment Techniques.</b>	
<b>Treatment Technique (TT)</b>	<b>Applicable <i>Waterworks Regulation</i></b>
<i>Escherichia coli</i> <sup>1</sup>	12VAC5-590-421
<i>Cryptosporidium</i>	12VAC5-590-401
<i>Giardia lamblia</i>	12VAC5-590-395; 12VAC5-590-500
Viruses	12VAC5-590-395; 12VAC5-590-500
<i>Legionella</i>	12VAC5-590-395
Lead and Copper	
➤ Optimal Corrosion Control Treatment	12VAC5-590-405 A
➤ Source Water Treatment	12VAC5-590-405 B
➤ Lead Service Line Replacement	12VAC5-590-405 C
➤ Public Education	12VAC5-590-405 D
Entry Point Disinfectant Residual <sup>2</sup>	12VAC5-590-376 C

<b>Table 1. Drinking Water Treatment Techniques.</b>	
<b>Treatment Technique (TT)</b>	<b>Applicable Waterworks Regulation</b>
Distribution System Minimum Residual <sup>2</sup>	12VAC5-590-376 D
Disinfection Byproduct Precursors/Total Organic Carbon (TOC) <sup>5</sup>	12VAC5-590-384 12VAC5-590-411 A
Acrylamide & Epichlorohydrin	12VAC5-590-395 B
Turbidity <sup>3</sup>	12VAC5-590-376 B
Total coliforms <sup>4</sup>	
➤ Seasonal Waterworks	12VAC5-590-370 A 1 g
➤ Level 1/Level 2 Assessment TT Triggers	12VAC5-590-392
Start-up Procedure (Seasonal Waterworks)	12VAC5-590-530 J
Filtration and Disinfection	12VAC6-590-395
➤ Enhanced Treatment for Cryptosporidium	12VAC5-590-401
Recycle Treatment	12VAC5-590-395 C
Uncovered Finished Water Storage	12VAC5-590-415
Licensed Waterworks Operator	12VAC5-590-461

- E. coli* is both a PMCL (in the RTCR) and a TT (in the GWR).
- There is no regulatory limit for Heterotrophic Plate Count (HPC). It is not a TT. Water at the entry point to the distribution system and in the distribution system with a HPC  $\leq 500$ /mL is deemed to have a detectable disinfectant residual for purposes of determining compliance with the requirement for maintaining a detectable residual disinfectant. HPC has no health effects. It is an analytical method used to measure the variety of bacteria that are common in water. The lower the concentration of bacteria in drinking water, the better maintained the waterworks is.
- Turbidity is a measure of the effectiveness of the filtration process. It is typically tracked as a “Combined Filter Effluent (CFE)” or “Individual Filter Effluent (IFE)” and measured using Nephelometric Turbidity Units (NTUs).
- Total coliform was previously a PMCL, but is now a TT used in the evaluation of total coliform TT triggers to determine when Level 1 and Level 2 assessments are required under the RTCR.
- TOC as a TT is a measure of the potential for disinfection byproduct formation in treated water. The percentage reduction is measured as the difference between source water TOC and treated water TOC, and based on a variety of source water conditions along with treatment, such as enhanced coagulation and enhanced softening, prescribed by the extended SWTRs.

## **2. SWTRs and Microbiological Contaminants**

There are four TTs (i.e., no PMCLs) which apply to the inactivation of microbiological contaminants (i.e., *Cryptosporidium*, *Giardia lamblia*, viruses, and *Legionella*) with specified log-removals assigned to each biological contaminant, with the exception of *Legionella*. Filtration and disinfection treatment provides protection from *Legionella*, when the log removals for *Giardia lamblia* and viruses are achieved. However, it does not assure that recontamination or regrowth will not occur in the hot water or cooling systems within the distribution systems (i.e., premise plumbing) of large buildings. Chapter 13 of this manual further examines *Legionella* oversight by the field office staff and the information-sharing requirements with other concerned stakeholders.

The TTs for these contaminants with their expectations are listed below:

- *Cryptosporidium* - at least 2-log removal or 99% removal/inactivation.
- *Giardia lamblia* - at least 3-log removal or 99.9% removal/inactivation.
- Viruses - at least 4-log removal or 99.99% removal/inactivation.
- *Legionella* - No regulatory limit, but EPA believes that if *Giardia lamblia* and viruses are removed/inactivated, according to the treatment techniques in the SWTR, then *Legionella* will also be controlled.

Failure to meet these expectations are TT violations.

### **3. Entry Point Disinfectant Residual**

Under 40 CFR § 141.72 (Subpart H), waterworks that use either a surface water or GUDI source, or both, that provide filtration must also provide disinfection. With disinfection treatment, the residual disinfectant concentration in the water entering the distribution system cannot be less than 0.2 mg/L for more than 4 hours (40 CFR § 141.72(b)(2) or 12VAC5-590-376 C).

### **4. Distribution System Disinfectant Residual**

Under 40 CFR § 141.72 (Subpart H), waterworks that use either a surface water or GUDI source, or both, that provide filtration must also provide secondary disinfection, which means maintaining disinfectant residual in the distribution system. The residual disinfectant concentration in the distribution system, measured as total chlorine, free chlorine, combined chlorine, or chlorine dioxide, cannot be undetectable<sup>d</sup> in more than 5% of the samples each month, for any two consecutive months that the waterworks serves water to the public (40 CFR § 141.72(b)(3) or 12VAC5-590-376 D and 12VAC5-590-395 A 2 a (3)). Water in the distribution system with an HPC of  $\leq 500$ /mL is deemed to have a detectable disinfectant residual for purposes of determining compliance with the requirement for maintaining a detectable residual disinfectant. Failure to meet this requirement is a TT violation.

### **5. Lead and Copper**

These contaminants are regulated as action levels (ALs) that require waterworks to control the corrosiveness of the finished water when the ALs are exceeded. If more than 10% of tap water samples collected (i.e., 90th percentile) exceed the AL, water systems must take additional steps or treatment. For copper, the AL is 1.3 mg/L, and for lead the AL is 0.015 mg/L. The TTs include optimal corrosion control treatment (OCCT), source water treatment, lead service line replacement, and public education. When these treatment steps are effectively carried out, compliance with the LCR will more likely be achieved. Further information is provided in Chapter 9 of the *Sampling Manual*. The treatment technique requirements under this rule are as follows:

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<sup>d</sup> “Undetectable” is not defined in the *Waterworks Regulations* or by the National Primary Drinking Water Regulations. This is interpreted to mean the lowest level that the test equipment and method will reliably measure. For some equipment, this will be 0.02 mg/L and for others, 0.2 mg/L.

### **5.1. Source Water Treatment<sup>e</sup>**

Under the LCR, any waterworks exceeding the lead or copper action level must implement all applicable source water treatment requirements specified pursuant to 40 CFR § 141.83 and 12VAC5-590-405 B. Once source water treatment is determined to be required, the owner must complete installation within 24 months and the owner must complete follow-up tap water monitoring and source water monitoring within 36 months after the department requires installation. After installation, the waterworks must operate within the State designated maximum permissible lead and copper concentrations for finished water entering the distribution system. The waterworks will be out of compliance if these designated concentrations are not met. This will result in a TT violation.

### **5.2. Optimal Corrosion Control Treatment**

All waterworks exceeding the lead and copper action level must recommend installation of one or more of the corrosion control treatments, based on corrosion control studies. If requested, ODW may perform a desktop evaluation for the waterworks. The State must approve the recommended or alternate treatment or designate the waterworks to have OCCT. The waterworks owner must install treatment and collect tap samples within timeframes established by the *Regulations*. Once treatment is validated and verified, the waterworks must continue to operate and maintain optimal corrosion control treatment, including water quality parameters at or above minimum values or within ranges designated by ODW. A waterworks will be out of compliance with these requirements for a six-month period if it has excursions<sup>f</sup> for any ODW-specified parameter on more than nine days during the period or the required timeframes for installation and testing are not met. See 40 CFR § 141.82 and 12VAC5-590-405 A. Noncompliance with any of these requirements will result in a TT violation.

### **5.3. Lead Service Line Replacement**

Under 40 CFR § 141.84 and 12VAC5-590-405 C of the LCR, waterworks that fail to meet the lead action level in tap samples, after installing corrosion control or source water treatments, must replace annually at least 7% of the initial number of lead service lines in its distribution system, based on a 15-year replacement program. The initial number of lead service lines is the number of lead lines in place at the time the replacement program begins. Such programs usually involve jurisdictional and ownership issues, cost considerations, sampling to test lines out of the replacement program, and sampling to determine the lead concentration post-line replacement, so ODW staff must work closely with the waterworks in the execution of this TT. Failure to observe these requirements and the associated time frames is a TT violation. However, because of the complexity of this TT, consideration and issuance of a notice of alleged violation must be

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<sup>e</sup> “Source Water Treatment” under the Lead and Copper Rule refers to treatment to remove lead and/or copper from the source water. It does not include corrosion control treatment, which generally involves adjusting pH and/or adding a corrosion inhibitor at the entry point to the distribution system.

<sup>f</sup> An excursion is a deviation of a measured value of a monitoring parameter outside of its specified operating range.



carefully considered by the ODW field staff, which may include consultation with the ODW Central Office.

#### **5.4. Public Education**

Under the LCR, all community and nontransient noncommunity (NTNC) waterworks must provide a consumer notice of lead tap water monitoring results at sites tested (see also 40 CFR § 141.85 and 12VAC5-590-405 D). Waterworks that exceed the lead AL must deliver public education as long as the lead AL is exceeded. Failure to observe these requirements or related timeframes is a TT violation.

#### **6. Acrylamide and Epichlorohydrin**

When polymers containing acrylamide and epichlorohydrin are used to treat water, each waterworks must certify annually in writing to the State (using third-party or manufacturer's certification) that the combination (or product) of dose and monomer level does not exceed the levels specified, as follows (see 12VAC5-590-395 B):

- ❖ Acrylamide = 0.05% dosed at 1 mg/L (or equivalent) of polymer
- ❖ Epichlorohydrin = 0.01% dosed at 20 mg/L (or equivalent) of polymer

Exceedance of these values will result in a TT violation. Staff may provide the certification form (i.e., FM-C9-Attachment 1) for the waterworks owner to comply with this reporting requirement.

#### **7. SWTRs and Turbidity**

Turbidity is a measure of the cloudiness of water. It is used as a measure (or metric) to indicate water quality and filtration effectiveness (i.e., an indication that disease-causing organisms are or might be present). Higher turbidity levels are often associated with higher levels of disease-causing microorganisms, such as viruses and *Giardia lamblia*. Section 7.3 of this chapter, Enhanced Filtration and Disinfection Treatment for Cryptosporidium, discusses additional treatment necessary to address cryptosporidium levels for Bins 2 through 4.

- ❖ For systems that use conventional or direct filtration, the following turbidity standards apply:
  - Combined filter performance:  $\leq 0.3$  Nephelometric Turbidity Unit (NTU) in at least 95% of measurements each month.
  - Combined filter performance:  $\leq 1$  NTU
- ❖ Slow sand filtration:
  - The turbidity level of representative samples of a waterworks' filtered water shall be  $\leq 1$  NTU in at least 95% of the measurements taken each month, except where ODW has established a higher limit.
  - The turbidity level of representative samples of a waterworks' filtered water shall at no time exceed 5 NTU.
- ❖ Diatomaceous earth filtration:
  - The turbidity level of representative samples of a waterworks' filtered water shall be  $\leq 1$  NTU in at least 95% of the measurements taken each month.

- The turbidity level of representative samples of a waterworks' filtered water shall at no time exceed 5 NTU.
- ❖ Membrane filters, bag filters, and cartridge filters:
  - The turbidity level of representative samples of a waterworks' filtered water shall be less than or equal to 0.3 NTU in at least 95% of the measurements taken each month, except that if the department determines there is no significant interference with disinfection at a higher turbidity level, then the ODW may substitute this higher turbidity limit for that waterworks.
  - The turbidity level of representative samples of a waterworks' filtered water shall at no time exceed 1 NTU.
- ❖ Systems that use filtration other than the conventional or direct filtration, slow sand filtration or diatomaceous earth filtration, plus bag or cartridge filters, and membrane filters, will have ODW-assigned turbidity limits based on their designs. Waterworks must follow these limits in accordance with their operation permit requirements.

Deviations from these turbidity standards must be followed-up by the operator(s) and the results must be reported in monthly operation reports (MORs) to ODW by the 10<sup>th</sup> day of the month following the reporting month. Further information on the importance of turbidity can be found in Chapter 4 - *Virginia Optimization Program (VOP)* - of this manual. Non-compliance with these requirements may result in a TT violation. Field staff are encouraged to act promptly on the first instances of non-compliance to avoid a TT violation situation. (See 12VAC5-590-376 B).

Normally, a TT violation is classified as a Tier 2 Violation, with a public notice required in 30 days. Every violation is unique, and ODW will consider several factors in deciding whether a violation should be elevated. For example, cases where a turbidity exceedance is significantly higher than the limit or exceeds the limit over the course of multiple measurements are more likely to be elevated to Tier 1.

ODW may also review the amount of disinfection that occurs after filtration and the current and historical quality of the source water. The determination may also depend on the type of filtration in place and the system's turbidity limits. ODW may also elevate Tier 2 notices to Tier 1 based on the results of consultations required under other rules, such as the Revised Total Coliform Rule and Surface Water Treatment Rule. These rules require the owner to report *E. coli* PMCLs and TT violations to ODW as soon as possible but no later than the end of the next business day. These reporting requirements are separate from those in the Public Notification Rule and are intended to allow ODW to oversee corrective actions, but ODW may also use these conditions to elevate Tier 2 violations to Tier 1. ODW will be more likely to require Tier 1 notice if the percentage of samples testing positive for coliform is significantly higher than the TT triggers, particularly if coliforms are present in multiple areas of the distribution system, or if coliforms are linked to a break in distribution system integrity.

### **7.1. 24-Hour Consultation for Turbidity**

Systems with certain violations involving the exceedance of turbidity limits must consult with ODW as soon as practical but no later than 24 hours after learning of the violation (40 CFR §

141.203(b)). This requirement applies to: (1) TT violations resulting from single exceedances of turbidity limits (5 NTU) under the SWTR; (2) TT violations resulting from single exceedances of turbidity limits (1 NTU) under the IESWTR or the LT1ESWTR; and (3) turbidity MCL violations determined by the average of turbidity measurements over two consecutive days (5 NTU). It does not apply to violations of monthly turbidity requirements. As a result of this consultation, ODW may decide to elevate such violations to Tier 1. If consultation does not occur, the violation automatically is elevated to Tier 1. The owner has 24 hours from the time the violation is elevated to issue the notice.<sup>8</sup>

## **7.2. Filtration and Disinfection Treatment**

Subpart H (40 CFR § 141.70 et seq.) regulations require all waterworks using either a surface water or GUDI source, or both, to provide filtration and disinfection. While the federal regulations allow criteria for avoiding filtration, Virginia's *Waterworks Regulations* do not include the avoidance criteria. Failure to provide filtration or disinfection treatment at such waterworks will result in a TT violation. (12VAC5-590-395).

## **7.3. Enhanced Filtration and Disinfection Treatment for Cryptosporidium**

Under Subparts P (40 CFR § 141.170 et seq., T (40 CFR § 141.500 et seq.), and W (40 CFR § 141.700 et seq.), all waterworks that use either a surface water or GUDI source, or both, including wholesale waterworks, must operate the waterworks to achieve the log inactivation/removals. These waterworks are required to conduct two rounds of source water monitoring under 40 CFR § 141.701, and determine if any additional Cryptosporidium treatment is required based on a bin-classification process described in 40 CFR § 141.710. Failure of the waterworks to comply with the reporting requirements of the bin classification to the ODW is a TT violation. If additional treatment is required or installed based on the microbial toolbox options, failure to achieve the treatment credit to meet bin classification requirements is a TT violation. (See 12VAC5-590-401 and also Section 2 of this chapter).

## **7.4. Recycle**

Under Subpart H (40 CFR § 141.76), any waterworks that recycles spent filter backwash water, thickener supernatant, or liquids from dewatering processes must return these flows through the processes of the waterworks' existing conventional or direct filtration treatment, or at a State-approved alternate location. (See 12VAC5-590-395 C). Waterworks must collect and retain this recycle flow information for ODW staff review and evaluation. Failure to recycle before all processes of the conventional or direct filtration treatment system, failure to obtain state approval for the use of an alternative recycle location, or failure to pursue related capital improvements is a TT violation.

## **8. Uncovered Finished Water Storage**

All waterworks must ensure that their finished water storage facilities are covered. (See 12VAC5-590-415). Any waterworks with uncovered finished water storage facilities must treat

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<sup>8</sup> Revised Public Notification Handbook, EPA 816-R-09-013, March 2010, page 60.

the discharge from the uncovered facility to the distribution system to achieve inactivation or removal of at least 4-log virus, 3-log *Giardia lamblia*, and 2-log *Cryptosporidium* using a protocol approved by the State. Failure by a waterworks to comply with these requirements is a TT violation.

### **9. *E. coli* and the GWR**

*Escherichia coli* (*E. coli*) is a biological contaminant and has a PMCL defined in the RTCR. However, under the GWR it is used as an indicator organism of fecal contamination in groundwater sources. For a groundwater waterworks with a confirmed source water *E. coli* contamination, this TT requires treatment that reliably achieves at least 4-log (99.99%) inactivation of viruses before or at the first customer. This “corrective action” requires ODW’s review and approval before implementation.

A confirmed source water *E. coli* contamination is defined as *E. coli*-positive results in the triggered and any one of the additional source water samples. The “triggered” source water samples collected in conjunction with repeat sampling under the RTCR are analyzed for the presence of *E. coli*. The analytical results are evaluated separately from those used to determine the *E. coli* PMCL that applies to distribution system samples under the RTCR. Confirmed source water *E. coli* contamination triggers the 4-log inactivation of viruses TT requirements of 12VAC5-590-421.

## **10. Total Coliforms and the RTCR**

### **10.1. Treatment Technique (TT) Triggers**

The RTCR specifies two levels of TT triggers and corresponding levels of assessment (Level 1 and Level 2) in response to those triggers. The degree and depth to which a waterworks must be examined, including monitoring and operational practices, depends on the TT triggers’ potential impact to public health. A Level 2 assessment requires a more in-depth and comprehensive review of the waterworks compared to a Level 1 assessment.

A waterworks has exceeded the TT trigger after any of the following trigger conditions is reached:

- Level 1 TT Triggers:
  - For a waterworks that collects 40 or more samples per month, the number of total coliform-positive samples exceeds 5.0% of the number of samples collected for the month.
  - For waterworks taking fewer than 40 samples (including routine and repeat samples) per month, the waterworks has two or more total coliform-positive samples in the same monitoring period.
  - The waterworks fails to take every required repeat sample after any single routine total coliform-positive sample.
- Level 2 TT Triggers:
  - This occurs when any waterworks conducting bacteriological monitoring under the RTCR experiences an *E. coli* PMCL violation or a second Level 1

TT trigger within a rolling 12-month period. This situation requires a Level 2 assessment to be conducted and completed.

- With this exceedance, the field office completes the Level 2 assessment with close coordination and consultation with the waterworks.

Once these triggers are established from the total coliform monitoring results, Level 1 and Level 2 assessments are required to be completed within 30 calendar days of the date of the owner notification letter (Level 1) or the trigger event (Level 2). Owners must complete corrective actions when the waterworks has identified one or more sanitary defects. Owners may not always complete corrective actions before submittal of the Level 1 assessment form or completion of a Level 2 assessment. In such cases, a mutually agreed upon schedule for corrective action between the field office and the waterworks is required. Field staff will need to track the activities involved in either assessment to ensure their successful and timely completion.

TT violations related to triggered assessments occur when any public water system has:

- Failed to conduct the triggered Level 1 or Level 2 assessment within 30 days after learning that it has exceeded the trigger; or
- Failed to correct any sanitary defect found through a Level 1 or Level 2 assessment within 30 days or in accordance with a schedule acceptable to the state.

For additional information, see 12VAC5-590-392 of the *Waterworks Regulations*. For further information on assessments and corrective actions, see Chapter 7 - *Assessments and Corrective Action* - of this manual.

## **10.2. Seasonal Waterworks Start-up Procedure**

Under the RTCR, all seasonal waterworks must demonstrate completion of a State-approved start-up procedure, which includes a requirement for start-up sampling before serving water to the public. (See 12VAC5-590-530 J). Failure to comply will result in a TT violation. As part of the start-up procedure, two consecutive coliform samples must be collected at least 16 hours apart and test total coliform absent. Failure to collect these samples, even if the waterworks infrastructure is evaluated and found satisfactory before start-up, will result in an incomplete start-up procedure subject to a TT violation.

## **11. Total Organic Carbon (TOC)**

This TT applies to all community and NTNC waterworks that use a surface water source or a GUDI source, or both, and employ conventional filtration treatment with enhanced coagulation or enhanced softening. The purpose of this TT is to provide a measurement of the monthly percent TOC removal between source and treated water as a compliance criterion in the control of disinfection byproducts (i.e., bromate, chlorite, TTHM, and HAA5). The table below outlines the basic requirements and expectations of this TT. For further information, see 12VAC5-590-411 A of the *Waterworks Regulations*.

Required Percentage Removals of TOC <sup>1-3</sup>			
Source Water TOC, mg/L	Source Water Alkalinity, mg/L as CaCO <sub>3</sub>		
	0 - 60	>60 - 120	>120
>2.0 - 4.0	35.0%	25.0%	15.0%
>4.0 - 8.0	45.0%	35.0%	25.0%
>8.0	50.0%	40.0%	30.0%

1. Depending on source water conditions, such as the measured TOC and alkalinity, and the alternative compliance criteria in 12VAC5-590-411 A 1 c, enhanced coagulation or enhanced softening may not be needed (see specifics in 12VAC5-590-411).

2. The percentage removals of TOC determines the effectiveness of control of disinfection byproducts and whether BATs will be required for compliance with the PMCLs for bromate, chlorite, TTHM, and HAA5.

3. Percentage TOC Removal =  $[1 - (\text{Treated water TOC} / \text{Source water TOC})] \times 100$ .

### 11.1. Disinfection Byproduct Precursors

Under 40 CFR § 141.135, all Subpart H (40 CFR § 141.70 et seq.) waterworks using conventional filtration treatment must operate with enhanced coagulation or enhanced softening to achieve the TOC percent removal levels, or otherwise meet alternative compliance criteria. (See 12VAC5-590-384). Failure to meet these requirements to control the level of disinfection byproduct precursors in drinking water treatment and distribution systems is a TT violation.

### 11.2. Compliance Calculations

Waterworks using conventional filtration treatment must operate with enhanced coagulation or enhanced softening to achieve the TOC percent removal levels described in Section 11, unless alternative compliance criteria are prescribed for the waterworks (See 12VAC5-590-411 A and 40 CFR § 141.135(a)(2)). These Subpart H waterworks must calculate compliance in accordance with the methodology outlined in 40 CFR § 141.135(c)(i) and 12VAC5-590-411 A 3:

{A}: Actual Monthly TOC Percent Removal =  $[(1 - (\text{Treated water TOC} / \text{Source water TOC})) \times 100]$

{B}: Required Monthly TOC Percent Removal derived from the above table.

{C}: Sum the results of {A}/ {B} for the last 12 months, then divide by 12.

If {C} < 1.0, the waterworks is not in compliance with the TOC percent removal TT requirement, and is subject to a TT violation.

### 12. SUVA Method for Disinfection Byproduct Precursors

For waterworks using the SUVA method as an alternative compliance criteria for the control of disinfection byproduct precursors, evaluation and reporting is as follows (12VAC5-590-411 A):

- The waterworks' source water SUVA, before any treatment and measured monthly, is less than or equal to 2.0 liters per milligram-meter (L/mg-m), calculated quarterly as an RAA.
- The waterworks' finished water SUVA, measured monthly, is less than or equal to 2.0 L/mg-m, calculated quarterly as an RAA.

### **13. Licensed Waterworks Operator TT for SW and GUDI sources**

Under Subpart H (40 CFR § 141.70(c)), waterworks that use surface water or GUDI sources, or both, must be operated by qualified personnel, in accordance with the requirements specified by the State regulations regarding the operator designation at classified waterworks and operator attendance requirements. Failure to have the appropriate licensed operator or operating staff at the waterworks is a TT violation. (See 12VAC5-590-461).

### **14. Field Office Staff Actions**

Adequate oversight of these TT requirements is typically a significant field office activity on an ongoing/routine basis. Monthly Operation Reports (MORs) that include content and frequency must be made available to field staff by the waterworks. These MORs may be customized based on the waterworks and its treatment scheme. Field staff may choose to assist waterworks in developing appropriate MORs to report their waterworks operations to include but not limited to the TT requirements. (See 12VAC5-590-570 for further information).

Waterworks practicing TTs are subject to compliance and the urgent need for corrective measures when non-compliance situations occur. Non-compliance with a TT is considered a Tier 2 violation with public notification required. Notices of Alleged Violations (NOAVs) are to be issued in a timely manner and require prompt response/action by the waterworks. Field office staff must place a high priority on initiating action to resolve any TT requirement. For disinfection requirements, refer to Chapters 2 and 3 of this manual for groundwater and surface water waterworks, respectively.

Generally, in the case of waterworks operating under the SWTRs, failure of a TT requires the waterworks to investigate the likely causes and present a report to the field office. These investigations include profiling and examining the factors that influence the effectiveness of the filtration and disinfection TTs.

To evaluate all of the TT requirements established under the various EPA rules described in Table 1, field office staff with oversight responsibilities must be very familiar with the rule requirements and the format in which the performance data are reported through the MORs. Field staff actions would routinely include the following:

- Review of the MORs for deviations from all the TT compliance criteria, and the agreed upon corrective actions and related schedule.
- Issue a Notice of Alleged Violations (NOAV) with public notification for any waterworks with TT violations; e.g., malfunctioning continuous monitoring or recording equipment not returned to service within the appropriate timeframes (14 days per GWR and 5 days per SWTR). For further discussion on disinfection associated with such TTs,

see Chapters 2 and 3 of this manual as they apply to groundwater and surface water, respectively. TT violations are Tier 2 violations, unless ODW elevates a violation from Tier 2 to Tier 1.

- Verify that all waterworks that operate to meet prescribed TT requirements have the appropriate licensed operator(s).
- Coordinate closely with the waterworks when a Level 1 or 2 assessment is required to be conducted and completed within 30 calendar days, following the exceedance of a total coliform TT trigger.
- Issue NOAVs for any waterworks that has failed “for no good reason” to complete all the required assessments or correct all identified sanitary defects in a timely manner.
- Issue a *Boil Water Advisory* as part of a Tier 1 public notice upon becoming aware of a confirmed source water *E. coli* contamination. Phone or in-person contact will be the minimum acceptable contact type to satisfy this requirement. E-mail is not an acceptable primary contact method, but can be used for supplemental communication. Within 5 business days, mail written follow-up notification to the waterworks. The default corrective action is requiring 4-log virus inactivation treatment of the source within 120 days of notification. (See also Chapter 2 of this manual).
- Initiate steps (if applicable) for a GUDI evaluation of the source as described in Chapter 7 of the *Sampling Manual*.
- Field staff may choose to assist waterworks in developing appropriate MORs to report their waterworks operations to include but not limited to the TT requirements. (See requirements specified in 12VAC5-590-570).

## **Appendix**

FM-C9-Attachment 1. Certification Form - Epichlorohydrin and Acrylamide Usage



# Chapter 10 – Contaminants of Emerging Concern (CECs) and Health Advisories

## **Background**

Contaminants of emerging concern (CECs) is a term used by water quality professionals to describe any substances - chemical, biological, or microbial - detected in water bodies that may cause ecological or human health impacts, and typically are not regulated under current environmental laws. Sources of these substances include agriculture, urban runoff, industrial chemicals, ordinary household products, and pharmaceuticals that are disposed of to sewage treatment plants and subsequently discharged to surface waters. CECs have the ability to enter the water cycle after being discharged as pollutants through municipal wastewater treatment plant discharges, agricultural and urban runoff making its way into rivers, directly through industrial effluent discharge, or by the process of seepage and infiltration into the water table, eventually entering sources serving public water supplies.

## **1. CECs and Impact on Human Health**

CECs may be suspected or known to cause adverse human health impacts such as endocrine disrupting activity and other toxic mechanisms. The U.S. Environmental Protection Agency (U.S. EPA) has classified some CECs as known carcinogens, probable human carcinogens, possible human carcinogens, not classifiable, or non-carcinogens. CECs typically do not have any regulatory standards, and therefore may be associated with health advisories.

Certain contaminants were identified for further study to determine whether they will be regulated under the Safe Drinking Water Act (SDWA), or regulated only by states (such as with polyfluoroalkyl substances (PFAS)), because of their associated risks to human health and the environment. In other situations, the contaminants may be unknown and need relatively expedient identification to understand the human exposure and public health risk. EPA has released a sampling protocol for this purpose. Visit:

<https://www.epa.gov/waterlabnetwork/sampling-guidance-unknown-contaminants-drinking-water?>

There have always been, and will likely always be, CECs in drinking water supplies, because the CEC list is ever evolving and many compounds that are “potentially” harmful in nature are being identified in food, drinking water, and in the environment. Therefore, researching for new information on CECs to understand the human exposure and the public health risk will always be an active, ongoing process.

## **2. Health Advisories**

The EPA issues health advisories (HAs) with guidelines which offer an estimate of acceptable limits for daily consumption that are not expected to cause adverse health effects to vulnerable populations (such as infants, pregnant women, or elderly persons).

HAs issued by EPA concerning drinking water can be found here:

<https://www.epa.gov/dwstandardsregulations/drinking-water-contaminant-human-health-effects-information>

## 2.1. Definition

Health advisories provide information on contaminants that can cause human health effects and are known or anticipated to occur in drinking water. EPA's health advisories are non-enforceable and non-regulatory, and provide technical information to state agencies and other public health officials on health effects, analytical methodologies, and treatment technologies associated with drinking water contamination.

## 2.2. Basis for Health Advisories

EPA's health advisories are based on the best available peer-reviewed studies of the effects of a given contaminant on laboratory animals (rats and mice), and by epidemiological studies of human populations.

EPA develops HAs to provide information on contaminants that can cause human health effects and are known to, or are anticipated to, occur in drinking water. A HA may exist for regulated or unregulated contaminants, with or without an associated maximum contaminant level (MCL). HAs are an estimate of acceptable drinking water levels for a chemical substance based on health effects information. Although EPA provides these values as non-enforceable technical guidance for unregulated drinking water contaminants, ODW may require public notification for informational purposes only in instances where a short-term HA is exceeded, although the analytical value may still be lower than a regulated standard. Published HA concentrations are set at levels where health effects are not anticipated to occur over a specified duration: one-day, ten-day, and lifetime. Each HA must be handled appropriately to avoid any misunderstanding or ambiguity.

EPA summarized HAs and MCLs in the *2018 Edition of the Drinking Water Standards and Health Advisories Tables*, incorporated into this policy by reference, which can be found here: <https://www.epa.gov/system/files/documents/2022-01/dwtable2018.pdf>

## 2.3. Types of Health Advisories

**One-Day Health Advisory:** The concentration of a contaminant in drinking water that is not expected to cause any adverse non-carcinogenic effects for up to one day of exposure. The one-day health advisory is intended to protect a 10-kg child consuming 1 liter of water per day.

**Ten-Day Health Advisory:** The concentration of a contaminant in drinking water that is not expected to cause any adverse non-carcinogenic effects for up to ten days of exposure. The ten-day health advisory is also intended to protect a 10-kg child consuming 1 liter of water per day.

**Lifetime Health Advisory:** The concentration of a contaminant in drinking water that is not expected to cause any adverse non-carcinogenic effects for a lifetime of exposure at that level. The lifetime health advisory is based on exposure of a 70-kg adult consuming 2 liters of water per day.

For most regulated contaminants, EPA has based MCLs on chronic exposure that is comparable to the lifetime HA. However, even chronic contaminants can exhibit acute health effects if the levels are high enough. In order to determine at what level a contaminant exhibits acute health effects, ODW will use EPA's one-day and ten-day HA levels or acute levels determined by the state toxicologist. Acute levels are typically higher than the MCL, if an MCL is established, and represent scientifically based short-term or acute exposures with adverse health effects. Generally, in situations where a HA and a regulated standard (e.g., MCL) exist for a given contaminant, the regulated standard takes precedence over the HA in matters concerning compliance determination and public notification. See Section 2.4 for additional guidance.

## **2.4. Responses to Health Advisory Exceedances**

When ODW receives sampling results that indicate a significant potential to have serious effects on human health because of short-term exposure, ODW staff must take quick action. Due to the lengthy process of rule promulgation and other factors, EPA may create an HA for an unregulated contaminant as a measure to guide decisions. The lack of an established MCL does not imply a contaminant does not have serious effects on human health.

Exceptions for certain HA Exceedances – When the analytical result of a drinking water contaminant is less than or equal to a MCL or MRDL, ODW will not require a response when the HA is exceeded as outlined in the following paragraphs. For example, chlorine has a one-day and ten-day HA of 3 mg/L, whereas the MRDL is 4.0 mg/L. ODW will not require a response when the chlorine HA is exceeded.

### **2.4.1. Short-term HA Exceedances**

When a drinking water contains contaminant levels that exceed an EPA one-day or ten-day health advisory level (except as noted above) or an acute toxicity level as determined by the state toxicologist, ODW must respond to the situation expeditiously. Any exceedances of a short-term HA must be acted on as soon as possible by the field office staff once laboratory results are known and verified. The field office may require the waterworks to collect and analyze a confirmation sample in accordance with the *Sampling Manual*; however, the field office must consider the time frame for receiving the laboratory result and the required following steps.

Public Notification Required - ODW may require a Tier 1 public notification for short-term HA exceedances that have the potential to have serious adverse effects on health because of short-term exposure (i.e., exceeding the one-day and ten-day HA). Except as noted above, the waterworks owner is required to issue public notice within 24 hours. Providing accurate and timely public notice allows consumers to make educated decisions regarding potential adverse health effects. The Tier 1 public notice should convey the urgency of the situation and make it clear to consumers what actions to take. The public notice must include specific information on the risks to any sensitive subpopulations (e.g., fetuses and infants) as identified in the associated health advisory. Tier 1 public notices commonly include a boil water advisory, a do-not-drink notice or a do-not-use notice. Field office staff must determine the appropriate notification and wording. Field office staff must also notify the local health director in advance of issuing the notice.

*Avoiding Public Notices* – To avoid the requirement for a Tier 1 notification, the contaminant levels must drop and remain (or be reasonably sure they will remain) below the HA and must not exceed the duration (i.e., one day or 10 days) associated with the short-term HA. The waterworks owner can take several possible actions, including taking the source off-line, adding/repairing/replacing treatment, or blending sources to lower the concentration prior to entering the distribution system. In some cases, such as with a harmful algal bloom, the toxin level may fall below the HA with time. Waterworks owners and operators should ensure that a sufficient volume of water is displaced or flushed from the distribution system (including storage tanks) to drop contaminant levels below the HA.

*Sampling* – Additional sampling will be required at a frequency to be determined by ODW and consistent with similar contaminants. The purpose of additional sampling is to assess the level, scope, and source of contamination, and to determine when the public notification is no longer necessary.

#### **2.4.2. Lifetime HA Exceedances**

Exceedance of a lifetime HA is considered a chronic exposure. The field office may recommend or require some or all of the following, determined on a case-by-case basis, with input from the local health director and the state toxicologist:

*Sampling* – If sample results confirm that drinking water contains a contaminant above the lifetime HA, additional sampling is needed to assess the level, scope, and localized source of contamination.

*Public Notification* – ODW recommends that the waterworks owner notify consumers about the levels of contaminant in the drinking water. The notice should include specific information on the risks to sensitive subpopulations (e.g., fetuses, infants, and the immunocompromised persons) as identified in the associated lifetime health advisory. The public notification should identify options that consumers may consider to reduce risk such as seeking an alternative drinking water source.

### **3. Common Contaminants with HAs**

Below is information about a few unregulated contaminants with associated health advisories of current public interest. EPA has finalized over 100 different health advisories.

#### **3.1. Methyl Tertiary Butyl Ether (MTBE)**

MTBE is a synthetic volatile organic chemical with no natural sources. MTBE is a blending component of gasoline that replaced lead in gasoline in the late 1970's. MTBE was used in gasoline and reformulated gasoline (RFG) as an octane enhancer and to promote more complete burning, thereby reducing carbon monoxide and ozone levels in the air. Use of MTBE in other industrial processes is still common. The most common sources of groundwater and surface water contamination by MTBE are: leakage from storage tanks (both underground and above ground) and pipelines; spills at gasoline stations; disposal at landfill sites and dumps; emissions

from marine engines into lakes and reservoirs; and (to some extent) air deposition and storm water run-off.

MTBE moves rapidly into groundwater because of its solubility in water, relative mobility in soils, and resistance to decomposition. It generally migrates faster than other organic components of gasoline. As a result, MTBE can serve as an early indicator of potential gasoline contamination if detected in public and private drinking water wells. The reported concentrations of MTBE in wells can vary widely but generally are in the range of 1 to 10 µg/L.

According to the EPA, based on the limited sampling data available, most concentrations at which MTBE was found in drinking water sources are unlikely to cause adverse health effects. However, there are no studies on the effects on humans of drinking MTBE-contaminated water. There are significant uncertainties about the degree of risk associated with human exposure to low concentrations typically found in drinking water.

MTBE has a very unpleasant taste and odor that can make contaminated drinking water unacceptable to the public. Studies have shown that humans vary widely in the concentrations they are able to detect. The EPA has issued a **drinking water advisory** (not a HA) of 20 to 40 µg/L based on odor and taste thresholds. This advisory is not based on the potential human health risk associated with exposure to MTBE in drinking water via the ingestion, inhalation, or dermal routes. Several states have set action levels (or remediation trigger level) for MTBE in the 15 to 250 µg/L range.

ODW has adopted 15 µg/L (or 15 parts per billion) as a “trigger” level for MTBE in public drinking water. When the MTBE level exceeds the drinking water advisory of 15 µg/L, ODW will require that the waterworks increase the frequency of MTBE monitoring and ODW will provide technical assistance to the waterworks owner and coordinate with the local health department. On a case-by-case basis, ODW will determine if additional actions are necessary to protect public health. ODW recommends that customers not consume drinking water exhibiting taste and odor problems attributed to petroleum constituents, including MTBE. When drinking water exhibits taste and odor problems attributed to petroleum, the owner should consider treatment or alternate sources of supply.

Code of Virginia § 15.2-2144 requires (**bold emphasis added**):

B. Every public water supply operator shall **at least annually test the public water supply for the presence of methyl tertiary-butyl ether (MTBE)**. The locality shall maintain a record of testing conducted pursuant to this subsection. If the results of any test conducted pursuant to this subsection indicates the presence of **MTBE in excess of 15 parts per billion, the locality shall immediately notify** the Department of Environmental Quality and the **Department of Health**. The Division of Consolidated Laboratory Services shall maintain and make available, upon the request of any person, a list of laboratories, accredited under the provisions of the federal Safe Drinking Water Act (42 U.S.C. § 300f et seq.) to analyze samples, located throughout the Commonwealth that possess the technical expertise to analyze water samples for the presence of

MTBE. Any lab seeking accreditation under the Safe Drinking Water Act may contact the Division of Consolidated Laboratory Services. The Division of Consolidated Laboratory Services shall establish a fee system to offset the costs of tests performed on behalf of public water supply operators. Such test may be conducted simultaneously with other tests.

Notwithstanding the provisions of this subsection, the State Board of Health, acting pursuant to its authority regarding public water supplies, may establish an alternative schedule for water supply testing, which shall apply in lieu of this subsection, for any public waterworks where annual testing is not otherwise required, if it determines that an alternative schedule is appropriate to protect the public health and promote the public welfare.

This law does not supersede the *Waterworks Regulations*, nor does it invoke any action on the part of ODW except to receive the notification from the waterworks that the sample was in excess of 15 ppb. While the law does not specify the exact location of the samples, ODW requires that each entry point to the distribution system be sampled annually for surface and GUDI sources and triennially for groundwater sources. For additional information, see:

[https://www.cdc.gov/biomonitoring/MTBE\\_FactSheet.html](https://www.cdc.gov/biomonitoring/MTBE_FactSheet.html).

Normally, MTBE is included with the VOC test panel.

### **3.2. Manganese**

Manganese is a common and naturally occurring metal found in over 100 materials. Manganese can be found in soil, air, water, and foods such as many nuts, grains, fruits, tea, leafy vegetables, some infant formulas, and some meat and fish. It is used in the manufacturing process of iron and steel alloys, and as a component in various products such as batteries, glass, gasoline, fertilizers, and fireworks.

Manganese is an essential nutrient for humans and animals and adverse health effects can occur with too little or too much manganese. Adults and children are primarily exposed to manganese through food. Drinking water is also a source of manganese but normally in lower amounts. Exposure to manganese from air is generally less than that from food and water but can vary substantially depending on any industrial sources nearby.

EPA has issued a Secondary Maximum Contaminant Level (SMCL) for manganese, which means water that is over the secondary standard of 0.05 mg/L is known to cause cosmetic or aesthetic effects, such as a metallic taste, stained plumbing fixtures, and discolored water.

EPA is in the process of determining whether to regulate manganese due to updated health effects information and additional occurrence data. EPA included manganese in the fourth Unregulated Contaminant Monitoring Rule (UCMR4), which requires all public drinking water systems serving over 10,000 people and selected small systems to monitor for manganese. EPA will also consider the health effects in their regulatory determination and evaluate potential risks to children and infants based on recent studies ([81 FR 81099](#)).

In 2004, EPA issued a drinking water health advisory for manganese to provide guidance when the concentrations of manganese in water is above 0.3 mg/L. EPA established a lifetime health advisory at 0.3 mg/L to protect against concerns of potential neurological effects. EPA established a one-day and ten-day short-term (acute) advisory at 1 mg/L for adults and children. This advisory identifies the concentrations below which potential health problems would unlikely occur for healthy individuals over 6 months old. However, EPA advises that for infants younger than 6 months, the lifetime HA of 0.3 mg/L be used even for an acute exposure of 10 days, because of the concerns for differences in manganese content in human milk and formula and the possibility of a higher absorption and lower excretion in young infants.

ODW will require that community waterworks provide immediate notification to their customers when manganese results exceed the short-term health advisory of 0.3 mg/L.

- Health Advisory Levels: 0.3 milligrams per liter (mg/L) and 1 mg/L
- Infants younger than 6 months should not consume water that contains manganese over 0.3 mg/L.

Formula-fed infants are at particular risk since some baby formulas contain manganese as a nutrient and should not be prepared with water that also contains manganese. EPA's health advisory information for manganese is here:

[EPA \(Environmental Protection Agency\). 2004. Drinking Water Health Advisory for Manganese.](#) Washington, DC: EPA, Office of Water. EPA 822-R-04-003.

### **3.3. Perchlorate**

Perchlorate is a naturally occurring and man-made chemical that is present in the environment and occurs in some drinking water systems and in foods. It is commonly used in solid rocket propellants, munitions, fireworks, airbag initiators for vehicles, matches, and signal flares. Perchlorate levels may vary widely even within a single food based on where it is grown and the amount of perchlorate in the water. It occurs in the form of the perchlorate ion,  $\text{ClO}_4^-$ . The majority of perchlorates are commercially produced salts. They are mainly used for propellants, exploiting properties as powerful oxidizing agents and to control static electricity in food packaging. Perchlorate contamination in food, water, and other parts of the environment was studied in the U.S. because of its harmful effects on human health. Perchlorate reduces hormone production in the thyroid gland. Perchlorate may occur naturally, particularly in arid regions such as the southwestern United States and is found as an impurity in hypochlorite solutions used for drinking water treatment and nitrate salts used to produce nitrate fertilizers, explosives, and other products. See [https://www.cdc.gov/biomonitoring/Perchlorate\\_FactSheet.html](https://www.cdc.gov/biomonitoring/Perchlorate_FactSheet.html)

The EPA has established a lifetime HA of 0.015 mg/L (15  $\mu\text{g/L}$ ) for perchlorate. See *Interim Drinking Water Health Advisory for Perchlorate*, EPA 822-R-08-025, December 2008. On July 21, 2020, EPA published a final action regarding the regulation of perchlorate under the SDWA. Considering the best available science and the proactive steps that EPA, states and public water systems have taken to reduce perchlorate levels, the agency determined that perchlorate does not meet the criteria for regulation as a drinking water contaminant under the SDWA. Therefore,

EPA withdrew its 2011 regulatory determination and made a final determination to not issue a national regulation for perchlorate. EPA announced on March 31, 2022, that it had completed a review of the 2020 decision, and reaffirmed that decision.

### **3.4. Cyanotoxins from Harmful Algal Blooms (HABs)**

Harmful algal blooms (HABs) are accumulations of phytoplankton that can produce toxins harmful to humans, animals, and ecosystems. Freshwater HABs often produce a scum or unusual color on the surface of the water. Cyanobacteria, sometimes referred to as “blue-green algae”, are photosynthetic bacteria that share some properties with algae and have the capacity to produce toxins. Cyanobacteria are found naturally in lakes, streams, ponds, and other surface waters.

The scientific community agrees that the incidence of HABs is increasing both in the U.S. and worldwide. Increased concentrations of nitrogen and phosphorus are found to be related to HABs occurrence, particularly during summer. These nutrients are found in agricultural runoff and sewage treatment discharge.

Human exposure to cyanotoxins found in drinking water can occur through dermal contact, inhalation, and ingestion of water containing the toxin. Illnesses caused by cyanotoxins include poisoning from anatoxin-a, cylindrospermopsin, lyngbyatoxin, and microcystin. There are no current federal standards for cyanotoxins in drinking water, but EPA is expected to consider regulation in the near future.

EPA has issued 10-day HAs for the cyanobacterial toxins microcystins and cylindrospermopsin. EPA set HAs at 0.3 µg/L for microcystins and 0.7 µg/L for cylindrospermopsin in drinking water for children of pre-school age and younger (less than six years old). For school-age children through adults, EPA set HAs at 1.6 µg/L for microcystins and 3.0 µg/L for cylindrospermopsin. Young children are more susceptible than older children and adults as they consume more water relative to their body weight.

ODW will use the HA levels of 0.3 µg/L for microcystins and 0.7 µg/L for cylindrospermopsin in drinking water since these are for the most vulnerable population, children of pre-school age and younger. Refer to ODW’s *Source Water Manual* for instructions on addressing a HA for these contaminants.

EPA’s health advisory information for HABs is here:

[https://www.epa.gov/sites/production/files/2016-11/documents/harmful\\_algal\\_blooms\\_and\\_drinking\\_water\\_factsheet.pdf](https://www.epa.gov/sites/production/files/2016-11/documents/harmful_algal_blooms_and_drinking_water_factsheet.pdf)

### **3.5. Perfluorooctanoic Acid (PFOA) and Perfluorooctane Sulfonate (PFOS), Gen-X and perfluorobutane sulfonic acid (PFBS)**

Perfluorooctanoic acid (PFOA) and perfluorooctane sulfonate (PFOS) are fluorinated organic chemicals that are part of a larger group of chemicals referred to as per- and poly-fluoroalkyl substances (PFAS). PFOA and PFOS are the most extensively produced and studied of these



chemicals. They were used to make carpets, clothing, fabrics for furniture, paper packaging for food and other materials (e.g., cookware) that are resistant to water, grease or stains. They were also used for firefighting at airfields and in a number of industrial processes. Because PFAS chemicals are used in an array of consumer products, most people are exposed to them. While consumer products and food are a large source of exposure to these chemicals for most people, drinking water can be an additional source in communities where these chemicals have contaminated water supplies. Such contamination is typically localized and associated with a specific facility; for example, an industrial facility where these chemicals were produced or used to manufacture other products, leakage from a landfill where these compounds were disposed of, or an airfield at which they were used for firefighting.

Studies indicate that exposure to PFOA and PFOS over certain levels may result in adverse health effects, including developmental effects to fetuses during pregnancy or to breast-fed infants (e.g., low birth weight, accelerated puberty, skeletal variations), cancer (e.g., testicular, kidney), liver tissue damage, immune effects (e.g., antibody production and immunity), thyroid effects, and cholesterol changes.

On June 15, 2022, EPA issued interim updated drinking water health advisories for PFOA and PFOS that replace those EPA issued in May 2016. These interim health advisories will remain in place until EPA establishes a National Primary Drinking Water Regulation. EPA also issued final health advisories for two other PFAS, perfluorobutane sulfonic acid and its potassium salt (PFBS) and for hexafluoropropylene oxide (HFPO) dimer acid and its ammonium salt (“GenX chemicals”). GenX chemicals are considered a replacement for PFOA, and PFBS is considered a replacement for PFOS.

<b>Chemical</b>	<b>Lifetime Health Advisory Level/Value (parts per trillion or ppt)</b>
PFOA	0.004 (Interim)
PFOS	0.02 (Interim)
GenX Chemicals	10 (Final)
PFBS	2,000 (Final)

ODW will coordinate with the waterworks and the local health department when confirmed PFAS results exceed the lifetime health advisories. ODW, in coordination with the local health director and state toxicologist will determine the actions necessary to protect public health on a case-by-case basis. Actions could include public notice, installation of treatment, etc. For more information, see:

<https://www.epa.gov/sdwa/drinking-water-health-advisories-pfoa-and-pfos>

<https://www.epa.gov/sdwa/questions-and-answers-drinking-water-health-advisories-pfoa-pfos-genx-chemicals-and-pfbs>

<https://www.epa.gov/pfas>

### **3.6. 1,4-Dioxane**

1,4-Dioxane is a synthetic industrial chemical that is completely miscible in water. Synonyms include dioxane, dioxan, p-dioxane, diethylene dioxide, diethylene oxide, diethylene ether and glycol ethylene ether. 1,4-Dioxane is unstable at elevated temperatures and pressures and may form explosive mixtures with prolonged exposure to light or air.

1,4-Dioxane is a likely contaminant at many sites contaminated with certain chlorinated solvents (particularly 1,1,1-trichloroethane [TCA]) because of its widespread use as a stabilizer for chlorinated solvents. Historically, the main use (90 percent) of 1,4-dioxane was as a stabilizer of chlorinated solvents such as TCA. Use of TCA was phased out under the 1995 Montreal Protocol and the use of 1,4-dioxane as a solvent stabilizer was terminated. Lack of recent reports for other previously reported uses suggest that many other industrial, commercial and consumer uses were also stopped.

EPA established a 1-day health advisory of 4.0 milligrams per liter (mg/L) and a 10-day health advisory of 0.4 mg/L in drinking water for a 10-kilogram child, and a lifetime health advisory of 0.2 mg/L in drinking water.

#### **4. Common Contaminants of Emerging Concern (CECs)**

The range of CECs is vast, and new CECs are expected to be added to the following list, which presents some of the more commonly known CECs of interest in the drinking water industry.

##### **4.1. Hexavalent Chromium (Chromium-6)**

Chromium is an odorless and tasteless metallic element found in rocks, soil, plants, and animals. Chromium is used in steel making, metal plating, leather tanning, paints, dyes, and wood preservatives. The most common forms of chromium in the environment are trivalent (chromium-3), hexavalent (chromium-6), and the metal form, chromium-0.

EPA has established a drinking water Maximum Contaminant Level (MCL) standard of 0.1 mg/L or 100 µg/L for total chromium, which includes all forms of chromium. The Virginia Department of Health has adopted this total chromium standard in the *Waterworks Regulations*.

EPA has not established a HA for total or hexavalent chromium.

Community and NTNC waterworks currently collect a minimum of one inorganics/metals sample at each entry point to the distribution system. Samples are collected at least once every three years for waterworks having solely groundwater sources, and at least once annually for waterworks with surface water source(s).

States may set more stringent drinking water standards than EPA. For example, California has a 50-µg/L MCL for total chromium.

EPA will determine if a drinking water standard for chromium-6 will be established or a revision to the current total chromium standard is warranted. EPA recommends that systems voluntarily collect samples and test for chromium-6. Their guidelines are:

- ❖ Locations to be sampled on the same day:
  - Samples of untreated water at the Intake/well locations,
  - Entry points to the distribution system, and
  - Distribution System.
  
- ❖ Frequency:
  - Surface water sources: quarterly, and
  - Ground water sources: semi-annually.

Sampling for chromium-6 is voluntary in Virginia. However, ODW suggests that any waterworks that detect total chromium should test for chromium-6. Waterworks that test for chromium-6 should request that the modified version of EPA Method 218.6, “Determination of Dissolved Hexavalent Chromium in Drinking Water, Groundwater and Industrial Wastewater Effluents by Ion Chromatography” be used. It is recommended that waterworks first look for total chromium using a more accessible method, then use the more complex EPA method to further refine any results requiring such testing. For more information, see: [https://www.niehs.nih.gov/health/materials/hexavalent\\_chromium\\_508.pdf](https://www.niehs.nih.gov/health/materials/hexavalent_chromium_508.pdf)

## 4.2. Legionella

Refer to Chapter 13 – *Information Sharing on Legionella in Drinking Water* for instructions on sharing *Legionella* water test results with other offices within VDH.

*Legionella* is a pathogenic group of gram-negative bacteria found throughout the world, mostly in aquatic and moist environments (lakes, rivers, groundwater, and soil). It can adversely impact public health by causing legionellosis, a pneumonia-type illness called Legionnaires' disease, and a mild flu-like illness called Pontiac fever. People are exposed to *Legionella* when they inhale water droplets containing the bacteria.

EPA has established a Treatment Technique Requirement for *Legionella* (see Chapter 9), but has not established a monitoring requirement for *Legionella* in drinking water.

*Legionella* bacteria grow well in conditions that support the growth of biofilms, such as in distribution systems and premise plumbing<sup>h</sup>. Documented sources of *Legionella* include cooling towers, swimming pools, domestic water systems and showers, ice-making machines, refrigerated cabinets, whirlpool spas, hot springs, fountains, dental equipment, soil, automobile windshield washer fluid, and industrial coolant. Design and maintenance guidelines for controlling the growth and proliferation of *Legionella* within cooling towers and other sources are in development.

Most healthy people do not become infected with *Legionella* after exposure. People at higher risk of getting sick are people 50 years or older, current or former smokers, people with a chronic

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<sup>h</sup> The term “premise plumbing system” refers to the portion from the water meter to the tap in homes and buildings.

lung disease (like chronic obstructive pulmonary disease or emphysema), and people with a weakened immune system from diseases like cancer, diabetes, and kidney failure.

*Legionella* is traditionally detected by culture, but new techniques for rapid detection are emerging, including the use of polymerase chain reaction and rapid immunological assays. Immunological techniques are used to establish the species or serogroups of bacteria present in the sample.

Control of *Legionella* growth in water distribution systems and premise plumbing systems can occur through focal or systemic methods. Focal disinfection is directed at a specific portion of the system, and includes ultraviolet (UV) light, instantaneous heating systems, and ozonation. Systemic methods disinfect the entire system, and include hyper-chlorination and copper-silver ionization. Selecting a combination of focal and systemic disinfection techniques ensures eradication of present *Legionella* colonies and prevents recolonization of the water distribution or premise plumbing system. Some of the methods currently in use:

- Chlorination is used to penetrate the biofilm, killing both the *Legionella* bacteria and the host organisms. Annual hyper-chlorination (e.g., shock chlorination) involves raising chlorine levels throughout the system for 1 – 2 hours. Note that trihalomethanes may increase when chlorine is increased over normal levels.
- Copper-Silver (Cu-Ag) Ionization is used to control *Legionella* in the plumbing systems of health facilities, hotels, nursing homes, and some large buildings. Cu-Ag ionization denatures proteins, leading to lysis and cell death. It is less expensive than hyper-chlorination and provides residual protection throughout the water distribution system. A disadvantage of this method is that the system's performance will suffer unless scale is removed regularly from the electrodes, and the pH of the system must be maintained below 8. It is not intended for cooling towers because at elevated pH (greater than 8.6) it is less effective. There are questions about the long-term efficacy of this disinfection technique.
- Chlorine Dioxide is used in cold and hot water systems. Its ability as a biocide is not affected by pH, or water corrosion inhibitors such as silica or phosphate.
- UV light kills *Legionella* by disrupting its cellular DNA synthesis. No chemical by-products are produced, and the taste and odor of water from a water distribution system containing a UV sterilizer are not affected. The UV sterilization system requires continuous maintenance in order to prevent scale from coating the UV lamps. The system does not provide residual protection, so another disinfectant must be added to provide a residual disinfectant throughout the system.
- Ozone, which is generated on-site with liquid oxygen, can be used to kill *Legionella*. Ozone inactivates *Legionella* instantly; however, it has a short half-life and decomposes quickly. Ozonation is more expensive than hyper-chlorination, and a large amount of space is required for the air preparation equipment or oxygen tanks and contacting tank. Another disinfectant must be added to provide a residual throughout the system.
- Thermal destruction of the *Legionella* through super heat and flush is a common practice for water distribution systems in hospitals, hotels, and other institutional buildings. The hot water temperature is elevated to above 70°C (158° F), and the distal sites, such as faucets and showerheads, are flushed for 30 minutes.

- Thermal control involves maintaining the temperature in hot and cold water systems outside of the range in which *Legionella* can ideally grow (between 35 and 46°C or 95 to 115°F). Although cold water systems are usually maintained at a temperature less than 20°C (68°F), the temperature can increase during periods of low flow or non-usage as well as during seasonal temperature fluctuations.
- Building owners can use mixing and temperature control on an ongoing basis to control *Legionella* in hot water systems. Heating water daily to 140°F is one of the most effective and reliable control measures for dealing with *Legionella*; however, it is too hot for people. On average, water above 106°F can cause pain in humans, and water at 140°F can cause third-degree burns in a matter of seconds. To avoid scalding and related injuries, plumbing codes limit the maximum temperature exiting a fixture to 120°F, with the expectation that people can readily control the mix of cold and hot water at the faucet to meet their needs. Tempering valves or mixing valves blend hot water (generated and stored at temperatures high enough to kill bacteria) with cold water in a controlled manner. This approach ensures constant, safe outlet temperatures while minimizing the occurrences of both scalding and *Legionella*.

Code of Virginia § 22.1-138 was amended to require school boards to maintain a water management program for the prevention of Legionnaires' disease at each public school building in the local school division. Accordingly, the Department of Education must make recommendations for the establishment, maintenance, and validation of water management programs to prevent *Legionella pneumophila* growth in public school buildings. For more information, see

<https://www.vdh.virginia.gov/drinking-water/implementing-sb-410-in-school-building-startup/>

EPA has established a Maximum Contaminant Level Goal (MCLG) of zero organisms for drinking water. EPA has issued a health advisory for *Legionella*; however, the HA did not establish threshold levels for *Legionella*. For more information, see:

<https://www.epa.gov/sites/production/files/2015-10/documents/legionella-factsheet.pdf>

### **4.3. Endocrine Disruptors**

Endocrine-disrupting chemicals (EDCs) are chemicals that, at certain doses, can interfere with the synthesis, secretion, transport, binding, action, or elimination of natural hormones in the body. Scientific research on human epidemiology, laboratory animals, fish, and wildlife suggests that these contaminants can disrupt the endocrine system leading to a range of reproductive and other health problems.

EDCs and potential EDCs are mostly man-made, and are found in various materials such as drugs, pesticides, metals, additives or contaminants in food, and personal care products. Some are pervasive and widely dispersed in the environment and may bio-accumulate. A number of EDCs are already on the SDWA regulatory watch list. In UCMR 3 and UCMR 4, for example, microcystins, perfluorinated organic compounds, pesticides, and other organic compounds were identified for further studies. For more information, see:

[https://www.niehs.nih.gov/health/materials/endocrine\\_disruptors\\_508.pdf](https://www.niehs.nih.gov/health/materials/endocrine_disruptors_508.pdf)

#### 4.4. Pesticides and Human Health Benchmarks

The *Waterworks Regulations* include PMCLs for a number of pesticides. However, there are numerous other pesticides in use that are not regulated. The EPA has established Human Health Benchmarks for Pesticides (HHBPs), for which there is no drinking water regulation or health advisory. HHBPs are levels of certain pesticides in water at or below which adverse health effects are not anticipated from one-day or lifetime exposures. HHBPs were developed for acute (one-day), chronic (non-cancer), and carcinogenic effects ( $10^{-6}$  -  $10^{-4}$  risk level) to protect against adverse health effects from exposure to pesticides that may be found in surface or groundwater used for drinking. HHBPs are not legally enforceable federal standards, but they may help to interpret monitoring data for pesticides that have no drinking water standards or health advisories. For more information, see:

<https://www.epa.gov/sites/production/files/2015-10/documents/hh-benchmarks-techdoc.pdf>,

and

<https://iaspub.epa.gov/apex/pesticides/f?p=HHBP:home>.

A “Human Health Benchmarks for Pesticides” Fact Sheet is provided here:

<https://www.epa.gov/sites/production/files/2015-10/documents/hh-benchmarks-factsheet.pdf>

The application of pesticides is regulated by the Virginia Department of Agriculture and Consumer Services (VDACS), Office of Pesticide Services. VDACS certifies applicators, registers pesticide products, and licenses pesticide businesses. These activities provide for the safe and effective control of pests that impact crops, structures, and health.

The Department of Environmental Quality (DEQ) issues a VPDES General Permit (VAG87 permit) for pesticide discharges to pesticide applicators regulated by VDACS. For additional information, see:

- Regulations adopted by the State Water Control Board: 9VAC25-260-30 and 9VAC25-800;
- Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) (7 USC § 136 et seq.); and
- The Virginia Pesticide Control Act (Title 3.2. Agriculture, Animal Care, and Food, Chapter 39. Pesticide Control).

# Chapter 11 - Consumer Confidence Report (CCR) Implementation

## **Background**

The Consumer Confidence Report (CCR) Rule as found in the *Waterworks Regulations*, 12VAC5-590-545, is essentially identical to the federal CCR Rule (Subpart O, 40 CFR § 141.151 et seq.).

The purpose of the CCR is to raise consumers' awareness of where their drinking water comes from, the quality of their drinking water, what it takes to deliver water to their homes, and the importance of protecting drinking water sources.

The CCR Rule requires each community waterworks (CWS) to prepare and mail, or otherwise directly deliver, annually one copy of its CCR covering waterworks operations for the previous calendar year to each customer defined as a billing unit or service connection to which water is delivered by the CWS.

The standard delivery method is to mail or hand deliver the CCR to each bill-paying customer, along with a good faith effort to reach consumers who do not receive water bills. However, the rule language "mail or otherwise directly deliver" was interpreted by the U.S. Environmental Protection Agency (EPA) to allow other forms of delivery of the CCR, including electronic means and methods, as long as the CCR is "directly delivered". A good faith effort can include posting the CCR on the Internet, advertising the availability of the CCR in the news media, publication of the CCR in a local newspaper, posting the CCR in public places, and other department-approved methods.

The CCR summarizes information regarding the source water, detected contaminants, compliance activities, and educational information in an accurate and understandable manner. This report covers the entire previous calendar year of waterworks operations, and over time is expected to provide a historical context for the consumer. The rule engenders a sense of transparency and trust. The flow chart shown later in this chapter outlines the implementation aspects of the CCR Rule.

A new CWS is allowed to operate for the first full year before preparing the CCR in the second year, and continuing annually thereafter.

## **1. Content Requirements of a CCR**

There are nine content areas that every CCR must address to be effective and to achieve the "information" goals and objectives of the CCR Rule. The Office of Drinking Water (ODW) field staff's review must ensure that these topics are adequately covered in the CCR. Field staff may provide a one-time only technical assistance with a waterworks owner to get the first CCR completed. After that, it is expected that the CWS perform the CCR on their own with some discretion with waterworks experiencing difficulties with the CCR. ODW staff are to review draft CCRs to identify deficiencies for correction in a timely manner so that the CWSs can achieve their CCR deadlines (see Table 1) as follows:

- Complete report delivered by July 1 annually.
- Wholesaler waterworks must provide supporting information to their consecutive waterworks by April 1 annually (or other mutually agreed or contractual date) to facilitate completion and delivery of the CCR by the consecutive waterworks.

Finally, the CCR delivery methods and recordkeeping must be in compliance with the other CCR Rule requirements, as described in Tables 1 and 2 and the later sections of this chapter.

### **1.1. Water System Information**

This section must include the name and phone number of a contact person associated with the waterworks, information on public-participation opportunities, and information for non-English speakers, as needed.

### **1.2. Source Water**

This section must clearly identify the source(s) of water used to generate the final drinking water that is distributed to consumers. The sources can be groundwater, groundwater under the direct influence of surface water, surface water, or a mixture of all sources. If applicable, the waterworks must notify consumers on the availability and means to obtain a copy of the completed source water assessment that includes identification of any susceptibility to potential sources of contamination. The source details can be general enough on the source name(s), such as commonly used names, and location(s) to provide clarity and understanding to the consumer.

### **1.3. Definitions**

At a minimum, the following specific definitions (using EPA mandated language) are to be included in the CCR: (i) maximum contaminant level (MCL); (ii) maximum contaminant level goal (MCLG); (iii) treatment technique (TT); (iv) action level (AL); (v) maximum residual disinfectant level (MRDL); (vi) maximum residual disinfectant level goal (MRDLG); (vii) Level 1 and Level 2 assessments; and (viii) variance or exemption (if applicable). Other acronyms and terminology referenced in the CCR may be defined at the waterworks owner's option for additional information and clarity to the consumer.

### **1.4. Detected Contaminants**

This section specifically consists of a table (or several adjacent tables) that summarizes (i) the highest level detected of regulated contaminants, and relevant MCLs, MCLGs, MRDLs, MRDLGs, TTs, and ALs; (ii) known source of detected contaminants; and (iii) health effects language (presented verbatim; e.g., when there is an exceedance of the MCL or MRDL). Additional monitoring results, such as unregulated contaminants reported in accordance with the Unregulated Contaminant Monitoring Rule (UCMR) must be reported in a separate table. The special monitoring results for sodium must also be reported. No data older than 5 years are to be included in these tables.



### **1.5. Information on Monitoring**

This section must include narratives (consisting of a summary of the results and an explanation of the significance of the results) on *Cryptosporidium*, radon, and other detected contaminants. Examples of other detected contaminants would be those that showed detections above a proposed MCL or a health advisory level.

### **1.6. Compliance Determination**

This section must include an accounting of any Notice of Alleged Violations (NOAVs) and any Ground Water Rule (GWR) special notices that were required for public awareness. Additionally, the following are to be considered for inclusion in the CCR where applicable:

- Failure of filtration and disinfection (either by non-installation, or by treatment with mandatory health effects language);
- Failure to take actions on Lead and Copper control requirements with mandatory health effects language;
- Failure of acrylamide and epichlorohydrin treatment techniques with mandatory health effects language;
- Failure to conduct the special monitoring requirements for sodium;
- Failure to observe the terms and conditions of an administrative or judicial order, if applicable; and
- Failure to complete Level 1 or Level 2 assessments as required. (See also Section 1.9).

### **1.7. Variances and Exemptions**

The CCR must cite variances and exemptions if they were granted to a CWS (if applicable). If granted, the CCR must provide the justification for issuance of the variance or exemption, along with the renewal dates and status report on steps being taken to comply with the terms and schedules.

### **1.8. Required Educational Information**

At a minimum, the CCR must provide additional health information using mandated language in 12VAC5-590-545 D 1 through D 4, unless other educational language is approved by the ODW, in the following contexts where applicable:

- A clear and concise explanation of the effects of the contaminants, such as *Cryptosporidium*, radon and other contaminants, in drinking water on vulnerable populations;
- Information on arsenic;
- Information on nitrate;
- Information on fluoride; and
- Information on lead.

## 1.9. Level 1 and Level 2 Assessments

These assessments are to be included in the CCR if they were required during the reporting year, based on two situations:

- Assessment not due to an *E. coli* PMCL violation using specified text at 12VAC5-590-545 E;
- Assessment due to an *E. coli* PMCL violation using specified text at 12VAC5-590-545 F.

## 1.10. Other Compliance Reporting

The CCR must also note any violations such as with PMCLs, MRDLs, and TTs that occurred during the reporting year, including but not limited to the following:

- Monitoring and reporting of compliance data;
- Filtration and disinfection failures to install or adequately treat water/operate equipment;
- Lead and copper control requirement failures;
- Treatment techniques for acrylamide and epichlorohydrin;
- Recordkeeping of compliance data;
- Special monitoring requirements for sodium; and
- A brief explanation regarding contaminants which may reasonably be expected to be found in bottled water.

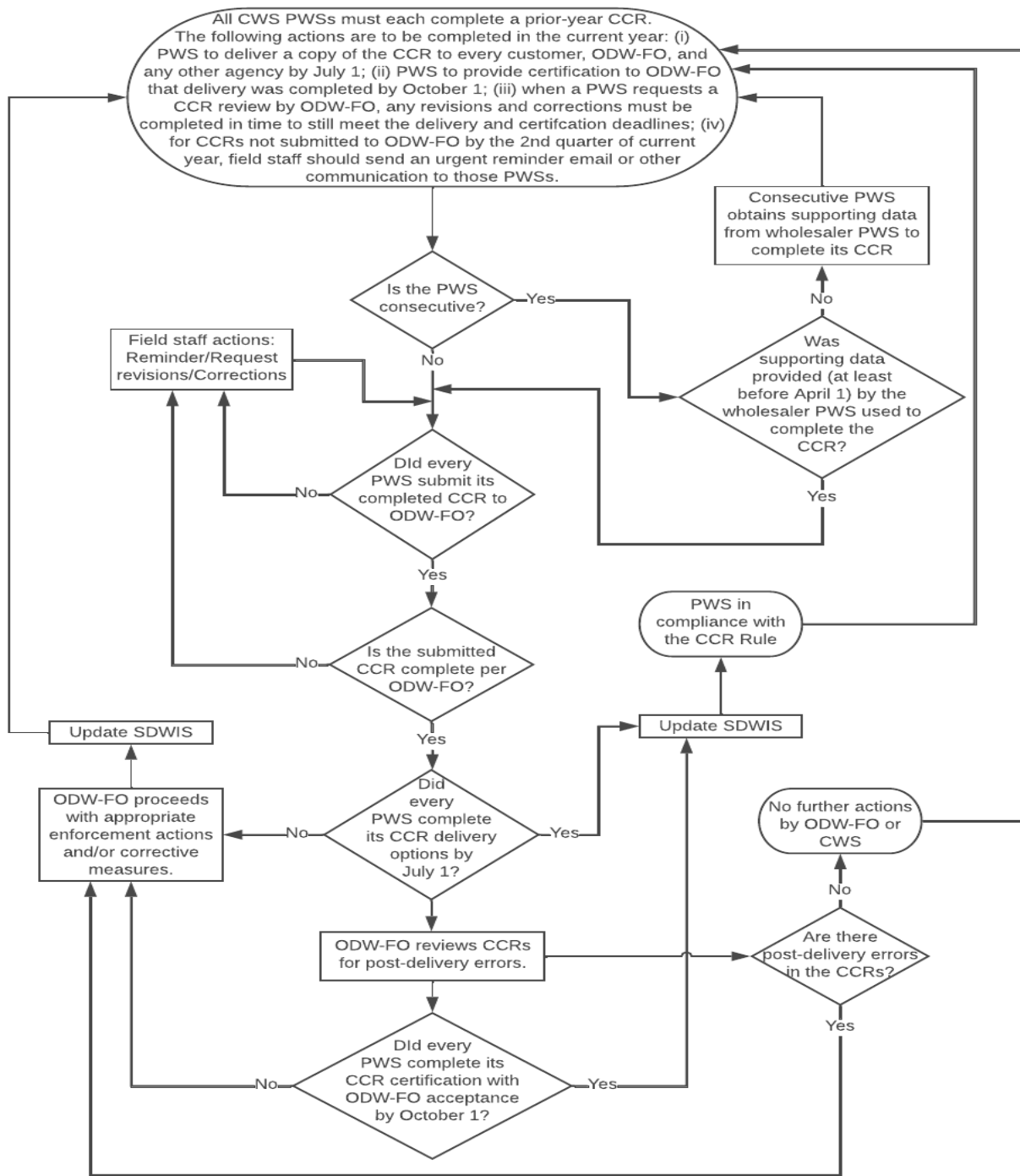
## 2. CCR Rule Implementation Deadlines

For compliance with the CCR Rule, there are three important deadlines (or dates) that each CWS must meet to be in compliance. Table 1 summarizes these dates and provides ODW staff timing flexibility.

<b>Table 1. CCR Rule Timelines.</b>		
<b>Deliverables</b>	<b>Mandatory Date</b>	<b>Remarks</b>
CWS may submit a draft/final copy of the CCR to the field office if a review is desired.	May 1 of the current year <sup>i</sup>	CWS has the option of providing the draft CCR early in the current year to the field office at least 2 – 4 weeks earlier for a review/finalization in order to meet the July 1 distribution deadline.
Wholesale waterworks provides a copy of its CCR	Preferably by April 1 of current year	Consecutive CWS develops its own CCR using the data

<sup>i</sup> Recommended date only if waterworks owner requests an earlier review and still have time to deploy the finished CCRs as mandated.

<b>Table 1. CCR Rule Timelines.</b>		
<b>Deliverables</b>	<b>Mandatory Date</b>	<b>Remarks</b>
or supporting data to the consecutive waterworks.		provided by the wholesaler waterworks.
Last day to distribute the CCR to customers	July 1 of the current year	Deadline of July 1. Beyond that will result in a violation.
Last day to provide copy of the distributed CCR to the field office.	July 1 of the current year	This copy of the CCR validates what was distributed to the customers by the CWS.
Last day to send signed certification form to the field office.	October 1 of current year	Deadline of October 1. Beyond that will result in a violation.



**Legend/Notes:**  
 CWS=Community Waterworks; PWS=Public Water System; ODW-FO=Office of Drinking Water-Field Office; CCR=Consumer Confidence Report; SDWIS=Safe Drinking Water Information System.  
 It is optional for a CWS to request a review of the CCR by ODW-FO before proceeding on the delivery and certification requirements. ODW-FO should perform a cursory review of the CCR to ensure that the minimum requirements were met. ODW-FO is responsible for logging all compliance tracking and enforcement actions in SDWIS. Field staff may consider enforcement actions or other corrective measures (see also Table 3) even though delivery and certification actions were completed, with deficiencies noted "post-delivery" of the CCRs.

*Flow Chart. Outline of the Annual Implementation of the CCR Rule Tasks.*

### **3. CCR Delivery Methods - Options for Community Waterworks**

The following delivery options are described in EPA Office of Water memorandum dated January 3, 2013. EPA has interpreted the current regulatory language to allow for the electronic delivery of CCRs if the delivery will meet the regulatory requirement to “*mail or otherwise directly deliver.*” These options provide opportunities for CWSs to improve the effectiveness of communicating drinking water information to the public, while lowering the burden on the CWSs and state by taking advantage of newer forms of communication.

Each method listed in Table 2 should be considered by the CWS in consultation with the field office (i.e., primacy agency) in order to ensure that it “directly delivers” the CCR to each customer. CWSs should consider a combination of delivery methods for their CCRs based on available technology and with consideration of the demographic and technology limitations of their customer bases. The methods below take into account future development of new technologies.

<b>Table 2. Summary of CCR Delivery Methods Under Existing CCR Rule.</b>	
<b>Delivery Method</b>	<b>Remarks</b>
Mail - paper copy	CWS mails a paper copy of the CCR to each bill-paying customer.
Mail (e.g., postcard, letter, etc.) - notification that CCR is available on a website via a direct URL <sup>1</sup>	CWS mails to each bill-paying customer a notification that the CCR is available and provides a direct URL to the CCR on a publicly available site on the Internet where it can be viewed. (Any URL to a webpage that requires a customer to search for the CCR or enter other information does not meet the “directly deliver” requirement.)
Email - CCR sent as an attachment to the email	CWS emails the CCR as an electronic file email attachment (e.g., as a portable document format (pdf)).
Email - direct URL to the CCR <sup>2</sup>	CWS emails each bill-paying customer a notification that the CCR is available and provides a direct URL to the CCR on a publicly available site on the Internet. (Any URL to a webpage that requires a customer to search for the CCR or enter other information does not meet the “directly deliver” requirement.)
Email - CCR sent as an embedded image in an email <sup>2</sup>	CWS emails the CCR text and tables inserted into the body of an email (not as an attachment).
Additional electronic delivery that “otherwise directly deliver”	CWS delivers CCR to each bill-paying customer through a method that meets the “otherwise directly deliver” requirement in coordination with the state. <sup>3</sup>

1. “URL” means uniform resource locator and is commonly known as the web address. The URL leading directly to the online version of the CCR must be provided to the ODW field office.

2. This method may only be used for customers when a CWS has a valid email address to deliver the CCR electronically.

3. This category is intended to encompass new methods or technologies not included in the above table, and which are acceptable through consultation and agreement with EPA.

### **4. Acceptable “Direct Delivery” Methods**

Three elements must be met in order to use the electronic delivery option to comply with the requirement to “directly deliver” the CCR:

- Electronic delivery must provide the CCR in a manner that is “direct.” The EPA

interprets this rule requirement to mean that the CWS can use separate mailings, such as utility bills with a URL, to meet their CCR requirement if the URL provides a direct link to the CCR and if the communication (e.g., utility bill) prominently displays the URL and a notice explaining the nature of the link.

- Regardless if a CWS is unaware of a customer's inability to receive a CCR by the chosen electronic method, it must provide the CCR by an alternative method allowed by the rule, such as traditional mailing upon request or hand delivery.
- A CWS must prominently display a message and the direct URL in all mail notifications of the CCR availability.

### **5. Unacceptable Delivery Methods**

CWS should be aware of some non-traditional "technological" methods that do not meet the "direct delivery" requirement. Typically, these are described as follows:

- A URL that does not take the customer directly to the entire CCR but requires navigation to another webpage(s) to find any required CCR content (e.g., a zip code search mechanism or webpage with multiple links to view required information) is not an acceptable form of direct delivery.
- Use of social media (e.g., Twitter or Facebook) directed at bill-paying customers does not meet the requirement to "directly deliver" since these are membership Internet outlets and would require a customer to join the website in order to read their CCR.
- The use of automated phone calls (e.g., emergency telephone notification systems) to distribute CCRs is not considered direct delivery, because the entire content of the CCR cannot be provided in the phone call.

### **6. Electronic Delivery Methods**

Electronic delivery methods are now regarded as being capable of meeting the CCR Rule language of "otherwise directly deliver". The key is that the delivery must be "direct" to the consumer; that is, the customer does not have to navigate to other websites to find any required CCR content. URLs must provide a direct link to the CCR.

There are two approaches that CWSs could use in providing electronic delivery of CCRs to its bill-paying customers:

- Paper CCR delivery with customer option to request an electronic CCR.
- Electronic CCR delivery with customer option to request a paper CCR.

CWSs therefore have the flexibility to consider using a combination of the delivery methods for their CCRs based on available technology and customer preferences, where such delivery is cost-effective, practicable, convenient, and understandable for the customers.

The following methods have been identified by EPA to comply with the delivery requirements of the CCR Rule:

### **6.1. Mail Notification that the CCR is Available on a Website**

The waterworks owner mails to each bill-paying customer a notification that the CCR is currently available (*not will be available in the future*) and provides a URL to the CCR on a publicly available site on the Internet. The web address (or URL) must be prominently displayed in the notification and must provide a direct link to the entire CCR so that the customer does not have to search for the CCR or enter additional information. The web address should be short and easy to type.

Such notification can be a water bill insert, a statement on the water bill, or a separate mailing. In addition to displaying the web address, instructions must be included to inform the customer how to request a paper copy of the CCR if the customer prefers paper delivery or is unable to participate in electronic delivery. The waterworks owner must immediately mail (or hand deliver) a paper copy of the CCR to every customer who requests one. Further, this notification should include a message explaining the purpose of the CCR and encouraging readership.

### **6.2. Email Notification that the CCR is Available on a Website**

The waterworks owner emails to each bill-paying customer a notification that the CCR is currently available (*not will be available in the future*) and provides a direct URL to the CCR on a publicly available site on the Internet. The same criteria mentioned in Section 6.1 above – prominently displaying a web address taking the customer directly to the complete CCR, providing instructions in the email on how the customer can receive a paper CCR, and immediately delivering a paper CCR to every customer who requests one – applies to this scenario also.

Valid email addresses must be used. If the waterworks owner receives a message that the email failed to reach the customer, then the owner must deliver the CCR to the customer by an acceptable alternative method as soon as is practical.

Customers without an email address on file with the waterworks owner and those without Internet capabilities and access must be provided the CCR by other acceptable delivery methods, such as direct mailing or hand delivery of the paper CCR or mail notification of the CCR as described in Section 6.1 above.

### **6.3. Email the CCR as an Attachment to the Email**

The waterworks owner emails the CCR as an electronic file attachment that is readily retrievable by the customer, typically in portable document format (PDF). The attachment must be the complete CCR. As explained in Section 6.2 above, if a message is received that the email failed to reach the customer, the waterworks owner must deliver the CCR to the customer by an acceptable alternative method as soon as is practical.

Customers without Internet capabilities and access must be provided the CCR by other acceptable delivery methods, such as direct mailing or hand delivery of the paper CCR or mail notification of the CCR as described in Section 6.1 above.

#### **6.4. Email the CCR as an Embedded Image in the Email**

The waterworks owner emails the complete CCR as an insert in the body of the email. As in Sections 6.2 and 6.3 above, if a message is received that the email failed to reach the customer, the waterworks owner must deliver the CCR to the customer by an acceptable alternative method as soon as is practical.

Customers without Internet capabilities and access must be provided the CCR by other acceptable delivery methods, such as direct mailing or hand delivery of the paper CCR or mail notification of the CCR as described in Section 6.1 above.

#### **6.5. Other Electronic Methods**

If any other electronic method or procedure is being considered, the CWS should request concurrence from the ODW before distributing the CCR. Before the distribution occurs, the ODW should consult with the EPA to ensure that the CCR Rule requirements will still be met.

#### **6.6. Other Considerations**

- A short message to encourage reading of the CCR should be included by the waterworks when sending a direct URL notification or email attachment. The complete CCR must be accessible and available to customers at the time they first receive notification.
- Use of social media (such as Twitter and Facebook) and automated phone calls to deliver the CCR do not meet the CCR rule requirement for direct delivery.
- While the CCR content and information (text and tables) must be the same, the CCR format does not have to be identical for paper and electronic delivery. The waterworks owner may choose to prepare the CCR in a single format that can be delivered both electronically and on paper to simplify the process.
- The CCR can include links to other, non-required information on the Internet that all customers can visit.
- Before providing electronic CCR delivery, the waterworks owner should consider a public outreach effort to provide advance notification of the change in delivery methods. This will have special significance for electronic bill and auto-pay customers who may not receive or may ignore their billing statements.
- A good faith effort to reach consumers who do not receive a water bill is still required. This can be accomplished by such actions as posting on the internet, mailing to postal patrons, advertising the availability of the CCR in local news media, and posting in public places.
- A CCR distribution waiver (or option) for small waterworks serving fewer than 10,000 persons can be selected at the sole discretion of the waterworks owner; the waterworks is not required to obtain pre-approval from ODW. Otherwise, this CWS can utilize the electronic methods as described in Section 6.



## **7. Good Faith Efforts at CCR Delivery**

All CWSs must make a good faith effort to reach consumers who do not receive water bills (i.e., the non-bill-paying customers) to deliver a copy of the CCR. A good faith effort can include a mix of appropriate methods, including electronic delivery, as long as the CCR is “directly delivered”. To reach the “non-bill-paying customers”, traditional public postings, newspaper publications, media advertising, and other ODW approved methods can be used to meet the “otherwise directly deliver” rule requirement.

## **8. CCR Delivery to Customers in Small Community Waterworks**

In light of EPA guidance on this subject (*circa* 2013), primacy agencies can allow small CWSs the flexibility to achieve the “mail or otherwise directly deliver” requirement of the CCRs to its bill-paying customers. The key is that the delivery method, especially the electronic delivery method, must have a “direct” feature of communicating with the customer; i.e., the customer must get the CCR directly without having to navigate/search through intermediate step(s) at the website. Thus, a URL or email, for example, provided to a bill-paying customer must provide a direct link to the entire CCR and not parts of it (with just one click!).

ODW will allow a mix of methods for CCR delivery as long as “each and every” bill-paying customer is provided a copy of the entire CCR either via mail (post office), hand delivery, by select electronic means, and other acceptable/alternate methods.

Small CWSs serving fewer than 10,000 persons have the option to publish the CCR in a local newspaper or newspapers of general circulation. If the owner chooses to publish the report, then the owner shall inform customers, either in the newspaper in which the report is to be published or by other means approved by the department, that a copy of the report will not be mailed to them and that a copy of the report will be made available to the public upon request. Note that the full CCR from the newspaper must be submitted to the field office. (12VAC5-590-545 G 1)

## **9. Public Health Related Benefits**

The principal benefits of the CCR are based on past information and not on real time. Alternative means exist for the waterworks owner to obtain a variety of real-time information from the ODW website. The current module “Drinking Water Watch” (DWW) or a subsequent version, such as Drinking Water Viewer, can be an especially useful tool for waterworks owners, laboratories, and the general public to access information about waterworks.

<http://www.vdh.virginia.gov/drinking-water/>

Implementation of the CCR Rule will result in the following benefits:

- Increased consumer knowledge of the water purveyor (supplier).
- Increased awareness of potential health risks so consumers can make informed decisions to reduce those risks.
- Facilitate consumer participation in decisions that affect public health.

## **10. ODW Field Office Staff Review of CCRs**

A timetable for tasks to be conducted by the field office staff is presented below. It allows for about a 30-day “head start” by field office staff to get things going and to guide the CWSs

forward (where applicable) so that the rule deliverables or deadlines (i.e., July 1 and October 1 of the current year) can be achieved. Table 3 is intended to represent the minimum effort needed to effectively administer the regulations under the current drinking water program constraints.

<b>Table 3. Target Dates for Field Staff to Coordinate Task Completion with the CWSs.</b>	
<b>Approximate Completion Dates</b>	<b>Task</b>
March 1 through 31	(Optional) Send CCR reminder, annual guidelines and certification forms notification by email. Use regular mail only when the waterworks does not have email or phone contacts; e.g., use letter (FM-C11-Attachment 1) to these CWSs describing the distribution deadline and the certification statement deadline. Staff may include any needed compliance results or a draft CCR. Include generalized guidelines (FM-C11-Attachment 5) and the Certification Statement form (FM-C11-Attachment 6).
April 1	Wholesale waterworks must provide consecutive waterworks with CCR information. Staff may follow-up with the consecutive waterworks with an email or phone call.
June 1	(Optional) Field office staff may issue an additional reminder (i.e., email or phone call) or use letter FM-C11-Attachment 2 to those CWSs that did not yet submit a draft or final CCR.
June 1	For those CWS that submitted CCRs, the field office staff review of draft CCRs should be well under way (use review sheet FM-C11-Attachment 3). Staff will inform the owners of the need for any changes. Use email or phone contact as the first option to transmit the comments. The use of comment letter FM-C11-Attachment 4 is still an option for more egregious situations.
September 1	Review distributed CCRs to determine major violations and issue NOAVs for major violations in accordance with rule compliance procedures. Optionally, notify owners of significant errors, requesting owners to correct errors in the CCR.
September 1	(Optional) Field staff may issue a reminder (email, phone call, or letter) to specific CWSs that did not yet submit the certification statement or CCR (use FM-C11-Attachment 2).
November 1	Field office to coordinate the recording of all major violations and return-to-compliance activities in the Safe Drinking Water Information System (SDWIS).
December 31	In the absence of an NOAV, field office staff should send a comment letter (use FM-C11-Attachment 4) to CWS listing minor errors and omissions.

### **11. Additional Optional Information for CCRs**

CWSs are not limited to providing only the required information in their CCRs. Additionally, at their option, CWSs may want to include any or all of the following to improve transparency and improve trust with the customers:

- An explanation (or diagram/sketch) of the treatment processes;
- Source water protection efforts;
- Water conservation tips;
- Production costs of making the water safe to drink;

- A statement from the waterworks leadership (e.g., public official or general manager);
- Taste and odor issues;
- Waterworks professional affiliations (e.g., AWWA, Partnership for Safe Water, etc.);
- Opportunities for public participation; and
- Cross-Connection Control Education.

## **12. Major Procedural Tasks**

### **12.1. Preparation of CCRs**

ODW field staff may assist waterworks owners in preparing their CCRs, especially new owners, so they fully understand the CCR requirements and are capable of preparing their own CCRs in future years. Only in circumstances where the field office determines that preparation of draft CCRs for a waterworks is the only viable time-saving alternative should staff provide such assistance to owners.

### **12.2. Technical Assistance**

Technical assistance may include, but is not limited to, the following: (i) preparing and sending a reminder email or letter, or making a phone call; (ii) providing sampling results and contaminant tables when needed; (iii) answering questions and explaining the CCR requirements to the public and to waterworks owners and operators; (iv) interpreting and consolidating water quality data; (v) reviewing and commenting on draft CCRs; and (vi) reviewing and commenting on final CCRs. Technical assistance should generally engender a positive relationship between the field office staff and the waterworks owner/personnel.

### **12.3. Compliance and Enforcement**

Compliance and enforcement actions consist of issuing applicable NOAVs to owners of CWSs for violations of all the rule requirements and entering the appropriate data into SDWIS. Examples of major violation are described as follows:

- CCR distribution was not completed by July 1.
- CCR contains multiple minor errors or omissions that significantly diminish the report's effectiveness. (For example, omitting one contaminant from the table of detected contaminants may not be considered significant, even if accompanied by several minor errors in other parts of the report, but omitting two or more contaminants from the table would be significant enough to be called a major violation.)
- CCR omits all required information relating to a Primary Maximum Contaminant Level (PMCL) or TT violation, including failure to meet the public notification requirements. (Complete omission of a monitoring/reporting violation is considered a major violation including failure to complete the proper and timely public notification.)
- CCR contains falsified information. (Some judgment will be necessary to differentiate between deliberate falsification and an unintended error or errors.)

- Failure to send ODW a copy of the final CCR by the July 1 deadline will not be considered a major violation provided the CCR was distributed (distribution to customers and good faith effort to reach other consumers) as required.
- The owner must provide a copy to the field office. The field office retains the copy for 5 years (per Library of Virginia's guidelines).

#### **12.4. CCR Data Tracking**

General tracking of CCR tasks is required by the ODW field staff. At a minimum, data collection and tracking will be limited to CCR Rule compliance and SDWIS data entry.

#### **12.5. CCR Retention**

The ODW field offices must maintain copies of CCRs for a maximum of five years in accordance with the Library of Virginia's guidelines. EPA regulations require the waterworks owner to retain the CCRs for a minimum of three years. Field offices must make every reasonable effort to accommodate requests from the public in accordance with the provisions of the Freedom of Information Act (FOIA) and good common sense.

#### **12.6. State Discretionary Items**

EPA did not require the Virginia Department of Health (VDH) to develop specific guidelines on the state discretionary items listed below. The Field Director will make decisions regarding these items, provide written documentation of the decision in the file, and decide when to refer the issue to the ODW Central Office for decisions in unusual cases.

- The waterworks owner is allowed to use their own explanation of contaminants which may reasonably be expected to be found in drinking water instead of the required language when approved by ODW. However, waterworks owners should be strongly encouraged to use the EPA-supplied language verbatim.
- The ODW field staff (such as during sanitary surveys) in conjunction with the waterworks owner should determine when the CCR must be sent to non-English speaking residents. The waterworks owner is obligated to determine through its own ongoing outreach efforts when non-English speaking residents comprise its customer base. ODW will rely on the waterworks owner to determine the need for using foreign languages, except in those rare cases where it is obvious that a large proportion exists and special CCR delivery methods are more practical.
- The waterworks owner is allowed to use their own educational statements instead of the required language for arsenic, nitrate, and lead, respectively, when approved by ODW. However, waterworks owners should be strongly encouraged to use the EPA-supplied language verbatim.
- The waterworks owner may be required to deliver the CCR to other agencies specified by ODW.

### **13. Other Considerations for CWS When Choosing Electronic Delivery**

These considerations are not required by the existing CCR Rule language but are important in continually promoting consumer awareness and confidence in the delivery approaches. The CWS could send a notification to customers in the following situations:

- A CWS needs to ensure delivery to every bill-paying customer, which may require a combination of paper or electronic delivery in a service area. For example, a CWS may provide the CCR through an email to electronic bill-paying customers but include a mail notification with a direct URL to customers who receive paper bills or mail those customers a paper CCR. If a CWS sends the CCR via email and it receives a message that the email failed to reach the customer (i.e., it bounced back), then the CWS should send the CCR by an allowable alternative means. In this instance, the CWS has an alternate method of contacting the customer (i.e., a physical address) to ensure that the CCR is delivered as soon as is practical.
- CWSs should assess their customer bases for specified electronic delivery method capabilities before beginning electronic delivery. A CWS should determine which customers do not have access to the Internet and continue delivering a paper CCR.
- Before providing electronic delivery of CCRs to customers, a CWS should conduct public outreach to provide advance notification of the upcoming change in delivery method and provide an opportunity to contact the CWSs with any concerns or a chance to register a preferred delivery approach.
- A CWS mailing a direct URL notification should also consider including a check box on every water bill, similar to a change of address or pay by credit card, in which a customer can elect to receive a paper CCR.
- When using a mail notification method with a direct URL, a CWS should display the direct URL on every mailing (e.g., quarterly water bill). This could increase the customer's access to the information and knowledge of the electronic delivery option if they currently receive a paper CCR.
- The direct URL notification should be displayed in typeface that is at least as large as the largest type on the statement or other mailing notification. A CWS should also create a short, easy to type direct URL. The short URL will be easier for a customer to copy or type into the website address bar in order to access their CCR on the Internet.
- CWSs sending a direct URL notification or email attachment should include a short message to encourage readership of the CCR.
- Electronic bill and auto-pay customers may not receive or may ignore their billing statements. Therefore, to ensure that the customer is aware of how to obtain their CCR a CWS should send a dedicated email (with a CCR-related subject line) to inform their customers of the availability of the CCR each year.
- CWSs should manage their email databases regularly to ensure correct emails are being used for electronic delivery to their customers.
- Once a customer requests a paper or electronic CCR for one year, a CWS should keep a record of this delivery preference for future CCR deliveries.
- A CWS may want to prepare its CCR in a format (e.g., pdf version) that can be delivered both electronically and on paper. This decreases the burden of creating two versions for

delivery. The format could also provide links to other, non-required information on the Internet that all consumers can visit for more information.

#### **14. Communication Tips for an Effective CCR**

The following tips are recommended for CWSs for consideration:

- Provide a consistent message, being as simple, truthful, and straightforward as possible. Avoid acronyms, initials, and jargon.
- Provide links and references to useful information resources.
- Limit wordiness by using short sentences and short paragraphs.
- Display important elements in bold or in large type as “eye catching” to the reader.
- Avoid using text font size that is too small.
- Ask customers for comments/feedback when a CCR is published.
- Use graphics, photographs, maps, etc. to complement the message of the CCR.
- Print the CCR on recycled paper to show environmentally friendly tendencies.
- Be forthright about things that were not done well, such as monitoring NOAVs.
- When determined by the state through sanitary or other surveys that the waterworks has service populations that are multilingual, non-English speaking residential customers, the owner must either provide the CCR in the appropriate language(s), or provide contact information where such customers can request a translated copy of the CCR or other assistance with the CCR.

#### **15. Reporting and Recordkeeping**

This is a CCR Rule requirement described in 12VAC5-590-545 G, which ensures that:

- Owner must “mail (or otherwise directly deliver) a copy of the” CCR to each bill-paying customer by July 1 annually;
- Owner must make a good faith effort to get CCRs to non-bill-paying consumers, using state-recommended means;
- Owner must send copies of the CCR to all ODW-identified state agencies;
- Owner must submit certification within 3 months after distribution of the CCRs by October 1 annually;
- Community waterworks owners serving >100,000 people must post their CCR on the Internet in accordance with the guidelines in Section 6; and
- In the spirit of transparency, the waterworks owner may send copies of the CCR to local health departments, TV and radio stations, and newspapers (i.e., page with the full CCR).

#### **Appendix**

FM-C11-Attachment 1. First CCR Notification Letter or Convert to Email  
FM-C11-Attachment 2. Second CCR Reminder Letter or Convert to Email  
FM-C11-Attachment 3. CCR Review Sheet  
FM-C11-Attachment 4. CCR Comment Letter or Convert to Email  
FM-C11-Attachment 5. General CCR Guidelines  
FM-C11-Attachment 6. CCR Certification Form

## Chapter 12 – Oversight of Water Main Breaks

### Overview

- Role of field staff
- Classification of water main breaks
- Assessment of pipe repair projects
- Bacteriological sample collection and testing
- American Water Works Association (AWWA) Standard for disinfection of water mains

This chapter will enable field staff to protect public health by providing consistent and accurate guidance to waterworks during identification of the water main breaks and the implementation of the water main repairs.

### Background

Minimizing disruptions in water service to consumers is a primary objective of any waterworks. Depending on the nature of a water main break, the response and extent of water main break repairs will vary, ranging from a minor repair with no disruption of service to emergency repairs with the potential for complete disruption of water service.

The basic objectives of a water main break repair are:

1. Prevent contaminants from entering the pipe during repair;
2. Clean, disinfect, flush water lines, and test water quality after repairs are completed;
3. Communicate with customers (premise plumbing flushing instructions, boil water advisory, etc.); and
4. Flush water lines and re-test, if water quality tests indicate the presence of coliforms, before resuming normal service.

This chapter provides guidelines for the classification of water main breaks and the appropriate response expectations and public notification requirements.

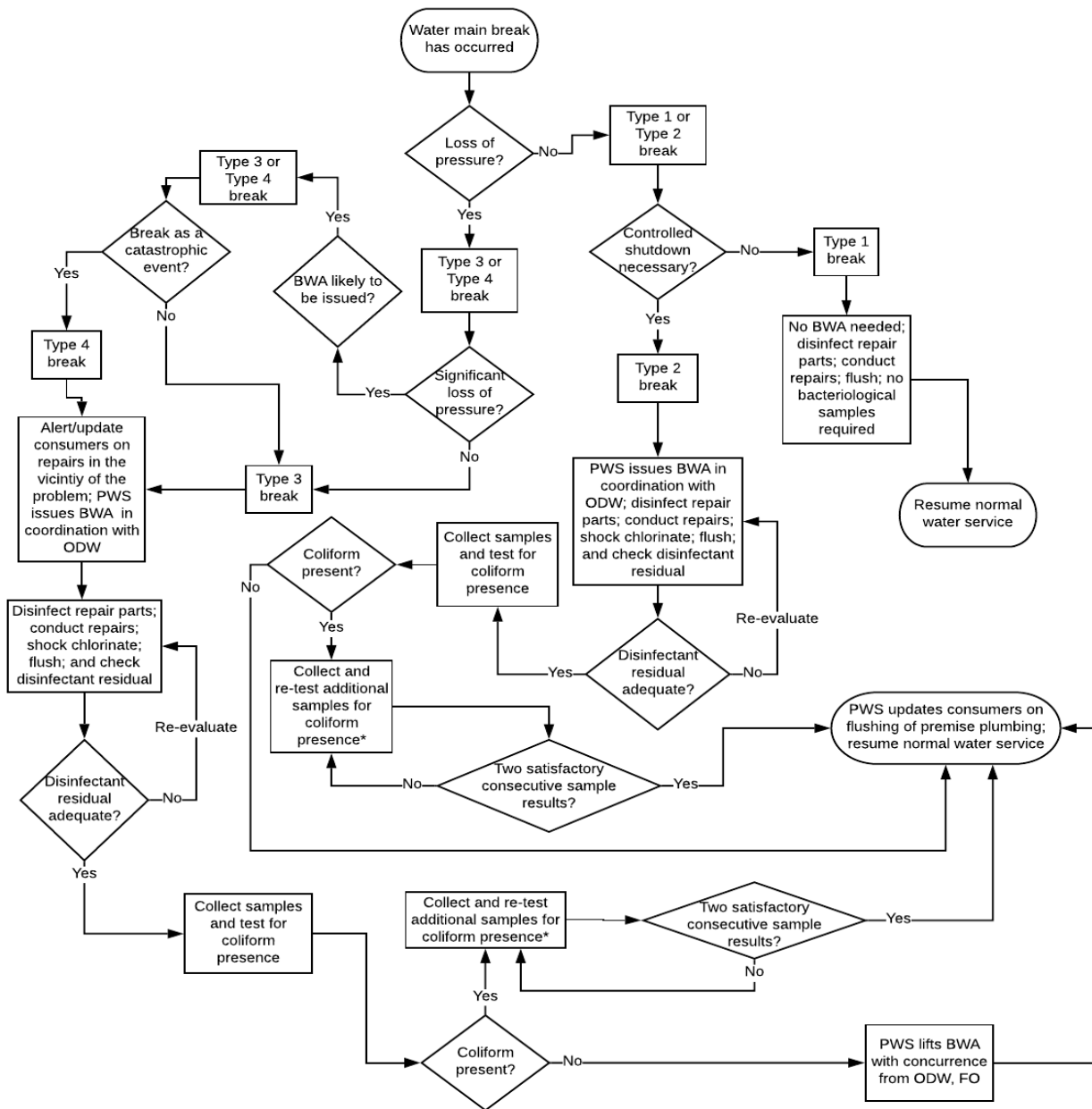
### 1. Role of Field Staff

The role of ODW field staff during and after water main repairs is to provide oversight to the waterworks. This includes ensuring the waterworks exercises the appropriate corrective action and informs affected customers about any needed customer actions, such as flushing premise plumbing or following a precautionary boil water advisory (BWA), as well as an estimated time for restoration of water service.

Flow Charts 1 and 2 present the decision-making process for waterworks and the role of field staff on water main breaks for waterworks using permanent and non-permanent disinfection processes, respectively. The waterworks must update the field staff promptly after completion of repairs, especially when the waterworks is under a BWA or other public notice. The waterworks owner must contact/coordinate with the ODW field staff on issuance and rescinding of a BWA.







**Legend/Notes:**

See Table 2 for main break types and responses. BWA=Boil water advisory; PWS=Public water system; ODW=Office of Drinking Water; FO=Field office.

A catastrophic main break presents a widespread unmanageable loss of pressure (such as depressurization occurring rapidly), and require substantial planning, logistics, and execution of the repairs before returning to normalcy.

\*When re-sampling to test for coliform presence consistently yields positive results, the PWS should re-assess the repair procedures and make any needed adjustments or corrections before proceeding forward again in this flow chart.

*Flow Chart 2. Understanding Water Main Breaks, Repair Procedures, and Decision-Making–Waterworks Without Permanent Chlorination.*

## 2. Classification of Water Main Breaks

The four classifications of water main breaks are summarized in Tables 1 and 2.

<b>Table 1. Water Main Break Classification at Waterworks with Permanent Chlorination.</b>			
<b>Type 1 Break</b>	<b>Type 2 Break</b>	<b>Type 3 Break</b>	<b>Type 4 Break</b>
Positive pressure maintained during break	Positive pressure maintained during break	Loss of pressure at break site/possible local depressurization adjacent to the break	Loss of pressure at break site/widespread depressurization in the system
Pressure maintained during repair	Pressure maintained until controlled shutdown	Partial or uncontrolled shutdown; isolated quickly <sup>1</sup>	Catastrophic event/failure; widespread unmanageable pressure loss
No signs of contamination intrusion	No signs of contamination intrusion	Possible contamination intrusion <sup>1</sup>	Possible/actual contamination intrusion
<b>Procedures</b>	<b>Procedures</b>	<b>Procedures</b>	<b>Procedures</b>
Excavate to below break	Excavate to below break	Excavate to below break	Catastrophic failure response
Maintain pit water level below break	Maintain pit water level below break	Maintain pit water level below break / Document possible contamination	Document possible contamination
No Boil Water Advisory (BWA)	No Boil Water Advisory (BWA)	Notify customers in the vicinity of the problem or BWA <sup>4</sup> . Determine BWA based on depressurization extent and potential presence of contamination <sup>1</sup>	Notify customers in the vicinity, if possible. Issue BWA – Contact ODW <sup>4,5</sup>
Disinfect repair parts, conduct repairs	Disinfect repair parts, conduct repairs	Disinfect repair parts, conduct repairs	Disinfect repair parts, conduct repairs
Check residual disinfectant level in distribution system	Conduct low velocity flush (flush 3 pipe volumes)	Conduct scour flush (3 ft/sec for 3 pipe volumes)	Conduct scour flush (3 ft/sec for 3 pipe volumes)
No bacteriological sample	Check residual disinfectant level in distribution system and ensure it is adequate	Check residual disinfectant level in distribution system and ensure it is adequate	Check residual disinfectant level in distribution system and ensure it is adequate
	Collect one bacteriological sample downstream <sup>2,3</sup>	Instruct customers to flush premise plumbing upon return to service	Instruct customers to flush premise plumbing upon return to service
		If no BWA - Collect two bacteriological samples bracketing the site <sup>2,3</sup> (If BWA issued use type 4 procedures)	Collect at least two sets of bacteriological samples 16 hours apart <sup>2,3</sup>
			Lift BWA with concurrence from ODW

Notes to Table 1

1. The waterworks should consider the following factors when deciding whether a BWA is necessary: sanitary conditions of repair trench, timeliness of the repair, adherence to AWWA disinfection procedures, disinfectant residual levels after repairs are completed, water clarity after flushing, and the extent of the depressurization area. If the waterworks cannot flush or disinfect the entire depressurization area, then they should consider a precautionary boil water advisory or additional bacteriological testing.
2. If any bacteriological sample is positive for total coliform, then the waterworks should collect additional samples until they receive two consecutive satisfactory samples collected 16 hours apart. Additional disinfection or flushing may be necessary. If the system did not have a BWA issued, then these results alone will not require the issuance of one.
3. If any bacteriological sample is positive for *E. coli*, then the waterworks should immediately issue a BWA, perform flushing in the area, ensure adequate disinfectant residual levels in the area and collect additional samples until two satisfactory samples collected 16 hours apart are received.
4. If the waterworks issues a BWA, then it should immediately notify the field office representative for additional guidance.
5. For situations that do not conform to the above guidelines or if the waterworks is unsure how to proceed then contact your field office representative for guidance.

<b>Table 2. Water Main Break Classification at Waterworks with no Secondary Disinfectant (Groundwater systems without permanent chlorination equipment)</b>			
<b>Type 1 Break</b>	<b>Type 2 Break</b>	<b>Type 3 Break</b>	<b>Type 4 Break</b>
Positive pressure maintained during break	Positive pressure maintained during break	Loss of pressure at break site/possible local depressurization adjacent to the break	Loss of pressure at break site/widespread depressurization in the system
Pressure maintained during repair	Pressure maintained until controlled shutdown	Partial or uncontrolled shutdown; isolated quickly <sup>1</sup>	Catastrophic event/failure; widespread unmanageable pressure loss
No signs of contamination intrusion	No signs of contamination intrusion	Possible contamination intrusion <sup>1</sup>	Possible/actual contamination intrusion
<b>Procedures</b>	<b>Procedures</b>	<b>Procedures</b>	<b>Procedures</b>
Excavate to below break	Excavate to below break	Excavate to below break	Catastrophic failure response
Maintain pit water level below break	Maintain pit water level below break	Maintain pit water level below break / Document possible contamination	Document possible contamination
No Boil Water Advisory (BWA)	Boil Water Advisory <sup>1</sup> (BWA) – Contact ODW - May be limited to area of depressurization and downstream of break	Notify customers in the vicinity. Issue Boil Water Advisory – Contact ODW <sup>1</sup>	Notify customers in the vicinity, if possible. Issue Boil Water Advisory – Contact ODW <sup>1</sup>
Disinfect repair parts, conduct repairs	Disinfect repair parts, conduct repairs, shock chlorinate the system <sup>4</sup>	Disinfect repair parts, conduct repairs, shock chlorinate the system <sup>4</sup>	Disinfect repair parts, conduct repairs, shock chlorinate the system <sup>4</sup>
Conduct low velocity flush (flush 3 pipe volumes)	Conduct low velocity flush (flush 3 pipe volumes)	Conduct scour flush (3 ft/sec for 3 pipe volumes)	Conduct scour flush (3 ft/sec for 3 pipe volumes)
Confirm residual	Confirm adequate residual disinfectant level in distribution system	Confirm adequate residual disinfectant level in distribution system	Confirm adequate residual disinfectant level in distribution system

<b>Type 1 Break</b>	<b>Type 2 Break</b>	<b>Type 3 Break</b>	<b>Type 4 Break</b>
No bacteriological sample	Collect one set of bacteriological samples downstream <sup>2</sup>	Instruct customers to flush premise plumbing upon return to service	Instruct customers to flush premise plumbing upon return to service
	Lift BWA with concurrence from ODW	Collect at least two sets of bacteriological samples 16 hours apart <sup>2,3</sup>	Collect at least two sets of bacteriological samples 16 hours apart <sup>2,3</sup>
		Lift BWA with concurrence from ODW	Lift BWA with concurrence from ODW

*Notes to Table 2*

1. *Groundwater waterworks with no secondary disinfectant residual that lose pressure must notify their ODW field office for instructions and issue a Boil Water Notice (BWN). In consultation with the field office, the BWN may be limited to the area downstream of the break and the area that lost pressure.*
2. *If any bacteriological sample is positive for total coliform, then the waterworks should collect additional samples until they receive two consecutive satisfactory samples collected 16 hours apart. Additional disinfection or flushing may be necessary. If the system did not have a BWA issued, then these results alone will not require the issuance of one.*
3. *For situations that do not conform to the above guidelines or if the waterworks is unsure how to proceed then contact your field office representative for guidance.*
4. *Consult with your field office representative to determine how best to shock chlorinate the system. Chlorine may be introduced into the system at a ground level storage tank or well(s). A residual disinfectant level of at least 1.0 mg/l must be achieved.*

For every repair situation, the waterworks must follow AWWA disinfection and bacteriological testing procedures to ensure successful completion of repairs and restoration of water service. It is important for waterworks to keep consumers updated when repairs require a significant amount of time to complete. In cases when a boil water advisory (BWA) is necessary, communication will involve the ODW, the waterworks, and impacted consumers.

**3. Assessment of Pipe Repair Projects**

Factors that typically influence the break classification and the associated response include:

- Size of main and location of the break site
- Sanitary conditions at the break site
- Time constraints
- Customer communication needs
- Disinfection methods
- Flushing
- Bacteriological testing
- Timing the return of service
- Capability of the waterworks to respond to the main break

An assessment of these factors will enable a more informed and logistical response to the pipe repair. This assessment is the responsibility of waterworks personnel as repairs are initiated.

**4. Bacteriological Sample Collection and Testing**

The primary purpose of bacteriological sample collection and testing is to ensure that the water quality is satisfactory before the waterworks resumes water services to impacted consumers. For type 2 breaks, a single bacteriological sample from a downstream location is required. For type 3 and 4 breaks, the waterworks needs two consecutive water samples (or sets) yielding “coliform absent” results to confirm readiness for resumption of water service. Table 3 summarizes the number of samples required for each type of water main break. The following criteria apply:

- For type 4 breaks and some type 3 and 2 breaks, ODW requires the owner to collect samples at the same location, 16 hours apart as a sample set. This allows for “rest time” between the samples.
- If a waterworks detects total coliform, it must flush and repeat one or more aspects of the disinfection or repair process. At least two satisfactory consecutive samples are necessary to return to normal water service.
- A waterworks can rescind an issued Boil Water Advisory (BWA) using a rescind notice following successful completion of a coliform test and filing a certification form with ODW. Both activities should be coordinated in a timely and prompt manner.
- A sample set consists of two samples.

<b>Table 3. Summary of Sample Requirements</b>				
<b>Situation</b>	<b>Main Break</b>	<b>No. of Samples</b>	<b>Collection Method</b>	<b>BWA Required?</b>
Permanent chlorination	Type 1	None	N/A	No
	Type 2	One	See notes 2 & 3 in Table 1	No
	Type 3	Two collected at the same time if no BWA. If BWA see Type 4	See notes 2 & 3 in Table 1	To be determined depending on the severity of the water main break and factors listed in Section 3.
	Type 4	At least two sets (four samples) <sup>1</sup> min 16 hours between first and second samples	See notes 2 & 3 in Table 1	Yes
No permanent chlorination	Type 1	None	N/A	No
	Type 2	One	See note 2 in Table 2	Yes
	Type 3	At least four (two sets) <sup>1</sup> min 16 hours between first and second samples	See note 2 in Table 2	Yes

	Type 4	At least four (two sets) <sup>1</sup> min 16 hours between first and second samples	See note 2 in Table 2	Yes
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Notes to Table 3

1. For waterline breaks affecting over 2,500 persons, collect sets of samples in the distribution system providing representative coverage of the area affected downstream of the break, in accordance with the number of required monthly bacteriological samples cited in the Waterworks Regulations. In addition to sample sites local to the break, the waterworks may collect samples at routine bacteriological sample sites. Field office staff have discretion to adjust the required number and locations of bacteriological samples or sets of samples.

The waterworks will submit written documentation of bacteriological results to be evaluated by ODW staff to determine if ODW concurs with rescinding the BWA. ODW staff completes the process by filing documentation among the ODW records of the waterworks.

**5. AWWA Standard for Disinfection of Water Mains**

The recommended AWWA Standard for disinfecting water mains is the most current version of ANSI/AWWA C651. ODW staff can find the AWWA Standards here:

[Y:\06-Technical Resources\610-AWWA Standards.](#)

## Chapter 13 – Information Sharing on *Legionella* in Drinking Water

### **Background**

*Legionella* is a regulated drinking water microbiological contaminant. However, it does not have a limit or Primary Maximum Contaminant Level (PMCL). It is regulated as a treatment technique under the Surface Water Treatment Rules (SWTRs), similarly to *Giardia lamblia*, viruses, heterotrophic plate count, and *Cryptosporidium*. Waterworks that adequately treat water under these rules (i.e., through filtration and disinfection) will therefore be compliant with respect to these contaminants. EPA believes that *Legionella* is controlled if *Giardia lamblia* and viruses are removed or inactivated according to the treatment techniques prescribed by the SWTRs.

It is now known that non-residential drinking water customers, such as health care facilities/buildings, large hotels, multi-story office buildings, etc. with extensive premise plumbing, have found *Legionella* surviving and growing in the piping systems. *Legionella* (e.g., *Legionella pneumophila*) can cause the disease called Legionellosis, and this is of significant interest to epidemiologists and other health-care professionals. Monitoring directly for *Legionella* is outside the scope of the *Waterworks Regulations*. However, disease surveillance of Legionellosis falls within the domain of the VDH's Office of Epidemiology, Division of Surveillance and Investigations. Consequently, there is a reporting requirement on Legionellosis by such facilities, as required by state law (Sections 32.1-36 and 32.1-37 of the Code of Virginia and 12VAC5-90-80 "Lists of diseases that shall be reported" in accordance with the Board of Health Regulations for Disease Reporting and Control). The reporting timeframe for Legionellosis is 3 days. Reporting and sharing of information regarding the presence of *Legionella* in drinking water by health-care and other facilities is therefore highly encouraged to facilitate preemptive measures in the protection of public health. This chapter describes the communication pathways involved in the information sharing on *Legionella*, and the ODW's role when it receives *Legionella* analytical results.

### **1. Who Must Report**

Virginia law requires the reporting and sharing of Legionellosis information. There is no requirement for waterworks to conduct monitoring for *Legionella* in drinking water. However, reporting and sharing of information on the presence/absence and quantification of the *Legionella* organism itself in drinking water is mandatory but only under the "Environmental Validation Testing" guidelines in accordance with VHA Directive 1061 (February 16, 2021) and other Centers for Disease Control and Prevention (CDC) guidance. Consequently, health-care and other facilities with extensive premise plumbing have established water management programs for *Legionella*. To mitigate the occurrence of Legionellosis at these facilities, the presence of *Legionella* must be tracked and preemptive remediation/action taken as needed. The results are to be reported and shared as described below, once testing for *Legionella* has been performed.

When contacted, ODW must act to share the information most expeditiously. If staff at the ODW central and field offices are provided analytical results of *Legionella* testing as noted above, that information needs to be shared as outlined in the flow chart described in Section 7. Additionally,

for positive *Legionella* results, the appropriate field office may be asked to provide technical assistance to the management of the facility that yielded the positive test results and to any other “stakeholder-type” personnel involved in an investigation. This role by ODW is primarily supportive.

**2. Definitions**

The following terminology are defined as follows:

- “Health care facility” means any institution, place, building, or agency required to be licensed under Virginia law, including but not limited to any hospital, nursing facility or nursing home, boarding home, assisted living facility, supervised living facility, or ambulatory medical and surgical center; see Code of Virginia § 15.2-2820.
- “Water management programs” identify hazardous conditions and take steps to minimize the growth and transmission of *Legionella* and other waterborne pathogens in building water systems. Developing and maintaining a water management program is a multi-step process that requires continuous review. The CDC strongly advocates such programs.

For the purpose of Legionnaires’ disease surveillance, the CDC defines a healthcare facility as a hospital, long-term care facility, or clinic, as described in the table below. Under Virginia law, this healthcare definition does not include assisted living facilities, senior living facilities, prisons, or group homes. These facilities often house at-risk populations and can have large, complex building water and plumbing systems. Because residents may have limited or no exposures outside these facilities, it is important to consider these facilities as likely sources in outbreak investigations. These facilities should all have effective water management programs.

<b>Hospitals</b>	<b>Long-Term Care Facilities</b>	<b>Clinics<sup>1</sup></b>
<ul style="list-style-type: none"> <li>● Acute care hospitals (general or specialty)</li> <li>● Long-term acute care hospitals</li> <li>● Critical access hospitals</li> <li>● Children’s hospitals</li> <li>● Psychiatric hospitals</li> </ul>	<ul style="list-style-type: none"> <li>● Skilled nursing facilities</li> <li>● Nursing homes</li> <li>● Inpatient hospice</li> <li>● Rehabilitation hospitals</li> <li>● Psychiatric residential treatment facilities</li> </ul>	<ul style="list-style-type: none"> <li>● Outpatient clinics<sup>2</sup>: general and specialty</li> <li>● Ambulatory (same day) surgery centers<sup>2</sup></li> <li>● Outpatient rehabilitation clinics</li> <li>● Dialysis centers</li> <li>● Dentists</li> </ul>

1. Examples of specialty clinics include outpatient cancer treatment centers, outpatient infusion centers, dental offices, or subspecialist offices that provide clinical care, not affiliated with a hospital. Other healthcare facilities not listed here include associated sites such as pharmacies and outpatient laboratories.  
 2. If a clinic visit or same-day surgery occurs within a hospital, the setting for that exposure is hospital, not clinic.

**3. Local Health Districts**

There are 35 health districts in Virginia, each with a District Director, Environmental Health Manager, and Epidemiologist. Further contact information can be found at:

<http://www.vdh.virginia.gov/local-health-districts/>

At the VDH-Central Office, there is a State Epidemiologist and the Office of Epidemiology (OEpi), Division of Disease Surveillance and Investigations. Users can communicate directly to the OEpi via “VDH\_EPI\_Comments@vdh.virginia.gov”.



It is important that whenever there is a positive *Legionella* analytical result, this information is shared with the principals of the epidemiological staff both at the local and state levels, as outlined in the flow chart described in Section 7.

#### **4. Water Management Programs**

The tracking of *Legionella* by facilities with extensive premise plumbing systems (which are not themselves waterworks) is best handled with a water management program with individuals dedicated especially for this purpose. These management programs are outside the regulatory purview of the *Waterworks Regulations*, but there are guidelines on their preparation and development as noted below. ODW's involvement is to facilitate timely information sharing on the occurrence of *Legionella* and to provide technical assistance as may be required. Note that ODW has no authority to require that a Water Management Plan be developed or implemented. The seven key elements of a *Legionella* water management program are as follows:

- 1) Establish a water management program team;
- 2) Describe the building water systems using text and flow diagrams;
- 3) Identify areas where *Legionella* could grow and spread;
- 4) Decide where control measures should be applied and how to monitor them;
- 5) Establish ways to intervene when control limits are not met;
- 6) Make sure the program is running as designed and is effective; and
- 7) Document and communicate all the activities.

For additional information, see also: <https://www.cdc.gov/legionella/wmp/overview.html>

#### **5. Role of ODW - Applicability**

The flow chart below outlines the roles of the ODW central office and field office staff. These roles apply only when drinking water samples are analyzed for *Legionella*, and there are no known cases of Legionellosis from the facility. Any case of Legionellosis has its specific reporting pathways, which are not through the ODW. Once the sampling information is received, ODW (field or central office) must share it as described in the flow chart described in Section 7. Other lines of communication exist when Legionellosis has already been determined and established elsewhere as noted above.

The appropriate Field Office should offer technical assistance to the facility that yielded the positive *Legionella* result. This is very likely to be a coordinated and collaborative effort once the information is circulated. The extent of the technical assistance is variable and it depends on each facility on a case-by-case basis.

#### **6. Procedures**

Each analytical result received by ODW should include the information listed under steps 1 and 2. Field staff should query the person submitting the result for information that was omitted/missing, so that the information that is forwarded is made complete (to the extent practicable).

Step 1. Collect the following basic information:

- a. Type of facility: hospital, nursing home, assisted living facility, etc.
- b. Facility status: does the facility have its own water source and use it to supply drinking water to patients, staff, residents, visitors, etc., or does the facility receive drinking water through a service connection to a permitted waterworks?
- c. Name of person who notified ODW, phone number, and position.
- d. Facility owner, local health district, water management consultant, etc.
- e. Sample results: positive or negative.

Step 2. Collect detailed information as available:

- a. Facility name
- b. Facility address
- c. Sample collection date(s)
- d. Description of sample(s) (ID assigned or source of the sample(s))
- e. Lab performing the testing
- f. Type of test (IDEXX Legiolert, culture test, PCR test, etc.)
- g. Lab test result(s)
- h. Lab report date(s)

Step 3. Share information as follows:

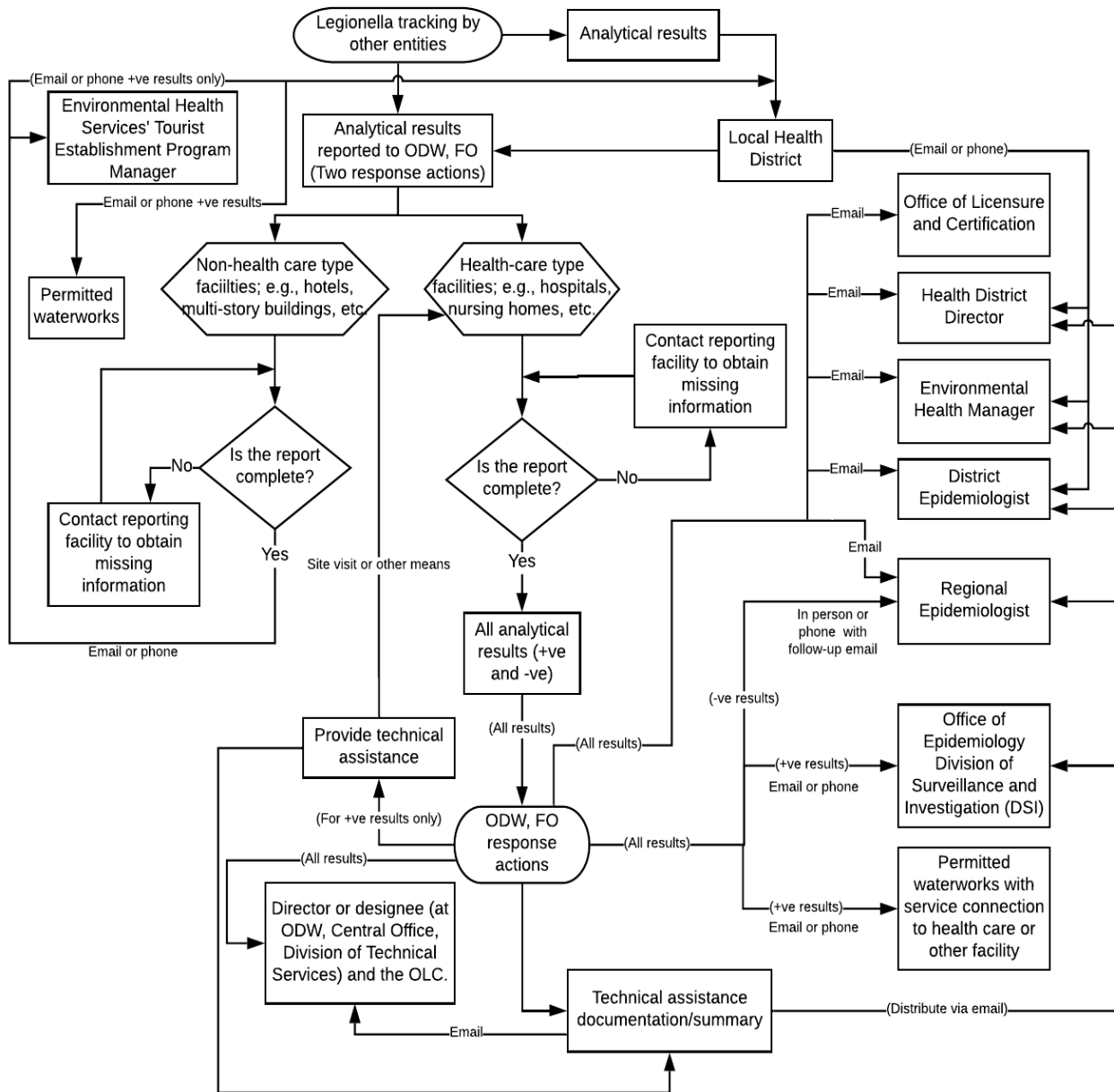
- a. If all test results are negative (*Legionella* is not present or below the detection limit):
  - (1) Notify the Regional Epidemiologist in person or by phone;
  - (2) Send written notification (email) to the Regional Epidemiologist, the general email address at the Office of Licensure and Certification at [olc-inquiries@vdh.virginia.gov](mailto:olc-inquiries@vdh.virginia.gov) and the Epidemiologist, Environmental Health Manager, and Health Director in the health district where the facility is located; and
  - (3) Proceed to Step 4.
- b. If the results are positive, in addition to notifying persons listed in Step 3.a., notify the Office of Epidemiology's Division of Surveillance and Investigations (DSI) Central Office of results at [dsi\\_monitoring@vdh.virginia.gov](mailto:dsi_monitoring@vdh.virginia.gov) or 804-864-8141.
- c. If the local health district notified ODW, speak with Regional Epidemiologist to make sure they know and share available information with the DSI Central Office and the ODW Central Office. Let the local health district handle other notifications inside VDH.
- d. If the samples came from a hotel, campground or summer camp facility, notify the Office of Environmental Health Services' Tourist Establishment Program Manager (Olivia McCormick, [olivia.mccormick@vdh.virginia.gov](mailto:olivia.mccormick@vdh.virginia.gov) or 804-864-8146).
- e. If ODW is notified by a facility owner or representative, notify the Regional Epidemiologist, then email the following:
  - i. Regional Epidemiologist, District Epidemiologist, Environmental Health Manager, District Director.
  - ii. DSI Central Office.
  - iii. ODW Central Office.

- f. If the facility receives water through a service connection to a permitted waterworks, notify the waterworks that the health care or other facility obtained positive *Legionella* samples. Provide the basic facility information to the waterworks.

Step 4. Follow-up:

- a. If all test results are negative, no further action is required.
- b. If any of the results were positive (indicating the presence of *Legionella*), ODW will offer technical assistance to the facility and discuss the following:
  - i. Locations where samples were collected (operating room, patient/resident room, storage closet, cleaning room, etc.) – is the area in active use, who is exposed (patients, residents, staff);
  - ii. The water management plan;
  - iii. Water quality information (as available);
  - iv. Supplying waterworks information (if applicable);
  - v. The plan for re-sampling;
  - vi. The plan for drinking water treatment (if any) – temporary (one-time or short term) vs. permanent/long-term; and
  - vii. The water management company or the consultant advising the facility.
- c. ODW will share a brief summary of the technical assistance provided to the facility and related information from the facility by email to: Regional Epidemiologist; District Epidemiologist; Environmental Health Manager; District Director; DSI Central Office; ODW Central Office, Division of Technical Services; and the Office of Licensure and Certification (OLC).

## 7. Information Sharing Flow Chart



**Legend/Notes:**

ODW=Office of Drinking Water; FO=Field office; CO=Central office; DSI=Division of Surveillance and Investigation; OLC=Office of Licensure and Certification.

If the facility receives water through a service connection to a permitted waterworks, notify the waterworks that the health care or other facility obtained positive *Legionella* samples. Provide the basic facility information to the waterworks.

*Flow Chart. Communication Pathways When ODW Receives a Legionella Analytical Result.*

## **8. Intended Outcome**

The overarching goal of this tracking procedure is to share information with all concerned parties, especially if cases of Legionellosis have been observed and validated. In such cases, the CDC may be contacted (not by ODW but by VDH's Office of Epidemiology) for assistance on its investigative capabilities. This will include initiation by and coordination with personnel from epidemiology, environmental sampling, risk communication, and others. ODW will not have a leadership role in such investigations, and will most likely have a supportive role in terms of gathering and sharing historical information and providing technical assistance regarding the drinking water service area(s) of concern; e.g., on chlorine residuals, etc.

This chapter and the procedure described herein are intended primarily for ODW field staff. Any needed changes or suggestions regarding content should be forwarded to the ODW Central Office, Division of Technical Services.

## **Chapter 14 – Notices of Alleged Violation, Public Notification, and Emergency Notices**

### **Background**

Waterworks perform routine compliance monitoring to ensure drinking water meets federal and state quality standards. When monitoring results exceed regulatory standards, the *Waterworks Regulations* (Regulations) require owners to collect additional compliance samples, assess conditions, or perform other actions to demonstrate compliance or return to compliance with drinking water quality standards. More information about the Office of Drinking Water (ODW) procedures for these requirements is in the *Sampling Manual*.

ODW must notify owners when waterworks fail to monitor, fail to complete required follow-up actions, fail to provide water to consumers that meets drinking water quality standards, or fail to comply with other requirements in the Regulations. (Such failures are typically subject to enforcement; see 12VAC5-590-110.) This chapter outlines the procedures and general considerations for ODW staff to document violations in a written notice to owners. This notice is in the form of a Notice of Alleged Violation (NOAV).

Compliance Specialists at each field office will routinely determine potential violations by running compliance reports in SDWIS at least monthly, in conjunction/collaboration with the SDWIS Administrator and other Data Management Staff. Validated “potential violations” are then processed as “alleged” violations, leading to the issuance of NOAVs.

NOAVs shall not contain “case decisions,” as defined in the Virginia Administrative Process Act, Va. Code § 2.2-4000 et seq.. In other words, the notice shall not conclude that the waterworks is or is not in violation, but should merely notify the owner that ODW believes a violation may have occurred based on ODW’s observations and the applicable regulatory requirements.

Owners are also required to provide notice to the waterworks’ consumers when conditions do not comply with drinking water quality standards or the owner has failed to perform required monitoring, treatment, or otherwise comply with regulatory requirements. In addition to potential violations, other situations that may require special notification are determined at the field office level.

This chapter includes information about public notification requirements, which are divided into tiers based on the level of public health risk associated with the noncompliance or condition, and associated tracking requirements. The attachments to the chapter include templates for NOAVs including an appropriate public notice. Each template typically allows field staff to address the specific circumstances that form the basis of the NOAV and public notification.

Every NOAV must consist of a letter describing the alleged violation. NOAVs that require public notification will include a draft public notice appropriate to the alleged violation and a certification form for the owner to use to verify that public notification was correctly

accomplished. All NOAV and public notification tracking must meet SDWIS database requirements. For additional information on this, see the *ODW SDWIS Manual*.

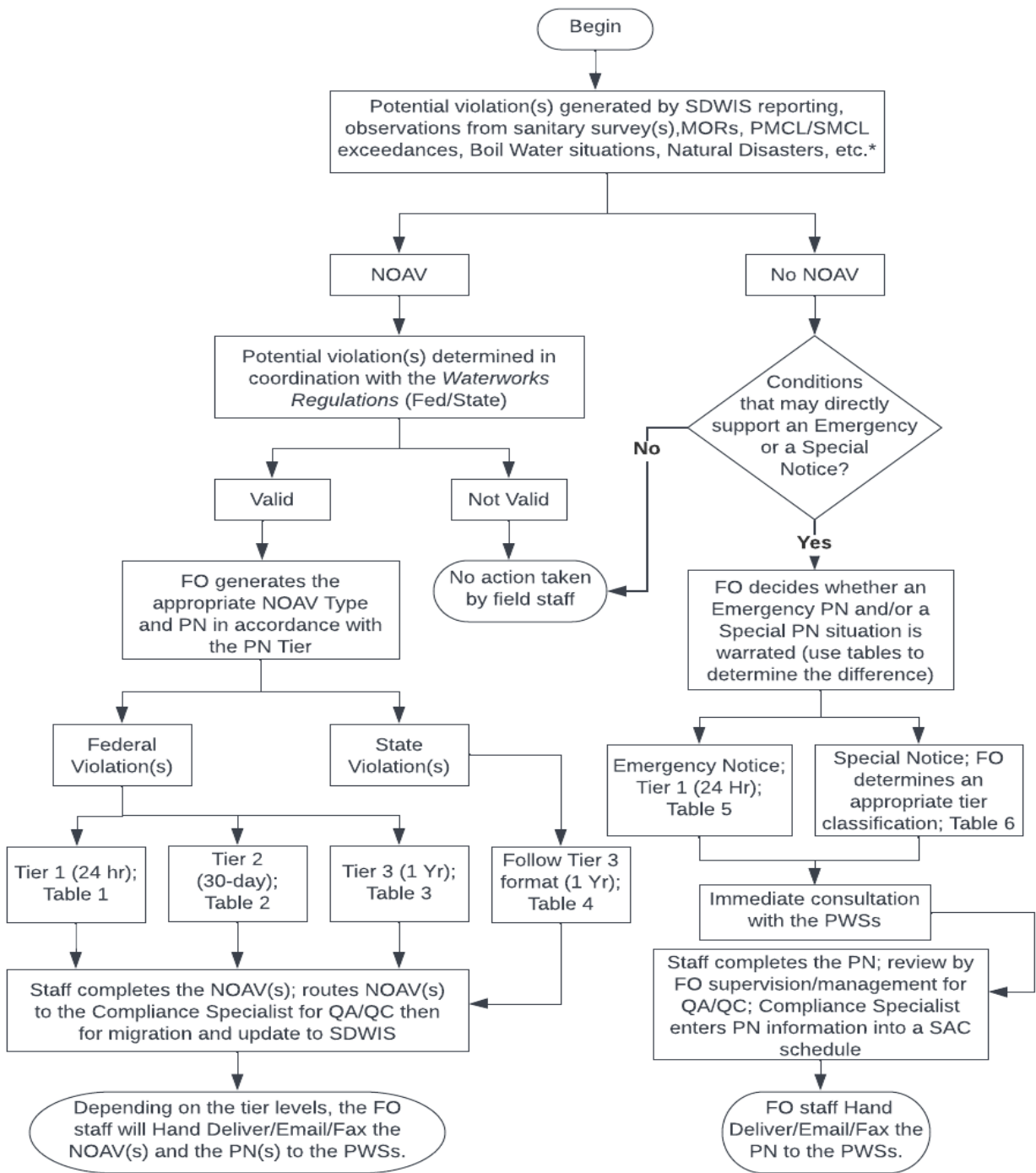
There are four types of public notification briefly described below:

- Tier 1 notice is for violations, exceedances, or situations with significant potential to have serious adverse effects on human health from short-term exposure. Notice is required as soon as practical but no later than 24 hours after the owner learns of the violation, exceedance, or situation. See 12VAC5-590-540 C 1.

Emergency notices are Tier 1 notices not associated with a NOAV and include some situations where water quality at a waterworks may become questionable or unknown due to incidents (e.g., treatment disturbances, water main breaks, loss of pressure or other occurrences) that require the issuance of a consumer alert for awareness. Examples of emergency notices include Boil Water, Do Not Drink, and Do Not Use Notices. Emergency notices are followed by the eventual rescission of the notice. Emergency notices are classified as Tier 1 under 12VAC5-590-540 C 1.

- Tier 2 notice is for violations, exceedances, or situations with potential to have serious, but not immediate, adverse effects on human health. Notice is required as soon as practical but no later than 30 days after the owner learns of the violation, exceedance, or situation. See 12VAC5-590-540 C 2.
- Tier 3 notice is for all other federal violations, exceedances, or situations not included in Tier 1 and Tier 2. Notice is required no later than one year after the owner learns of the violation, exceedance, or situation, and fulfillment of the public notification may be included as part of the annual Consumer Confidence Report (CCR) by community waterworks. See 12VAC5-590-540 C 3.
- State-Only notice is for violations that are unrelated to the National Primary Drinking Water Regulations (NPDWR). In most cases, ODW expects owners to complete notice for state-only violations in a manner and time frame that is consistent with a “Tier 3-type” notice. See 12VAC5-590-540 A 4 and Table 4 for additional guidance.

All compliance and enforcement actions (i.e., determinations and issuance of NOAVs, consent orders, etc.) shall be entered into SDWIS. Once the determination is made to issue a NOAV, staff shall use the current NOAV templates, modified as needed to appropriately reflect the violation. The flow chart below outlines the general approach to determining noncompliance and the implementation of the various NOAVs.



**Legend:**  
 SDWIS=Safe Drinking Water Information System; NOAV=Notice of Alleged Violation; QA/QC=Quality Assurance/Quality Control; PN=Public Notification; PWS=Public Waterworks.  
 \*Field staff may consider merging multiple violations into one NOAV to the PWS if it is more effective and efficient to do so.

Flow Chart. General Relationships between NOAVs and Public Notification.



## **1. ODW Assistance to Waterworks**

Upon learning of a monitoring result that exceeds a PMCL or does not meet a treatment technique (TT) requirement, failure to conduct required monitoring or reporting, or other alleged violations of the Regulations, field office staff, in collaboration with the Compliance Specialist, will start the process to notify the waterworks of the situation or condition, provide technical assistance as needed or requested to address the situation or condition, and provide any guidance with the public notification requirements. The timing and level of assistance will be proportional to the risk to public health associated with the situation or condition. In all cases of an alleged violation, or a situation or condition that requires public notification, the field office staff must issue a timely NOAV that cites the applicable requirement(s) in the Regulations and contains the appropriate instructions. In most cases, the NOAV will also include a draft public notice in order to allow the waterworks owner to deliver the public notification to consumers within the specified period.

Tier 1 situations and related public notification are ODW's highest priority due to the potential acute health effects associated with the situation or condition (see 12VAC5-590-540 A 1 l). For a Tier 1 situation or condition, the field office will forward the NOAV and draft public notice to the owner by the fastest available means, typically fax, e-mail, or other electronic means. Pick-up by the owner and delivery by the field office personnel are also viable options. Nothing prevents the waterworks owner from voluntarily initiating public notification. In all cases involving a Tier 1 situation or condition, the waterworks owner will be notified immediately (same day as received) by ODW field staff. Other violations, such as Tier 2, Tier 3, and State-Only violations, may also involve some degree of consultation with the waterworks owner regarding the development and delivery of the public notice.

## **2. Providing Notice of Alleged Violations**

Waterworks that fail to monitor, fail to complete required follow-up actions, fail to comply with a treatment technique, fail to provide water to consumers that meets drinking water quality standards, or fail to comply with other requirements in the Regulations must be notified of these conditions.

When ODW has reason to believe that a violation of Title 32.1 of the Code of Virginia or Parts I or II of the *Waterworks Regulations* may have occurred or may be occurring, ODW is required to notify the owner. Section 10 of this chapter provides additional requirements for public notice content.

The NOAV is not an official finding, case decision, or adjudication but may include a request to the owner to respond timely and to take specific corrective action by a stated deadline. See also 12VAC5-590-110 A.

## **3. Identifying Potential Violations**

Compliance Specialists at each field office will routinely determine potential violations by running compliance reports in SDWIS on a regular basis. The frequency and timing of running compliance reports depends upon the monitoring period and receipt of compliance monitoring data. For example, RTCR monitoring periods are either monthly, quarterly, or annually. Therefore, Compliance Specialists run RTCR compliance reports at least monthly.

With monthly operation reports (MORs) due by the 10<sup>th</sup> day of the month following the reporting month, or the 10<sup>th</sup> day following the end of the monitoring period (12VAC5-590-530), field staff should start running and reviewing the results of compliance reports shortly after the 10<sup>th</sup> day of the month. Frequently, compliance reports identify data quality problems, such as missing samples or samples marked as routine (RT) instead of repeat (RP). Field office staff will address the data quality problems by reaching out to the waterworks owner, laboratory, operator, or sampler as needed to request missing information and update SDWIS. Around the 25<sup>th</sup> day of the month, the Compliance Specialist will migrate the candidate violations into SDWIS. These violations are classified as preliminary violations.

Field office staff must review the preliminary violations in SDWIS and determine whether they are as follows:

- **Validated** – The violation is legitimate and the field office issues a NOAV;
- **Deleted** – The supporting data in SDWIS is corrected after the violation is created; or
- **Rejected** – The violation is legitimate and the field office staff determines that the NOAV will not be issued.

For rejected and deleted violations, field office staff will update SDWIS in accordance with the *ODW SDWIS Manual*.

For validated violations in SDWIS, field office staff will draft a NOAV letter with the corresponding public notice (PN) and “return” certification statement. Upon issuing the NOAV letter, field office staff will update SDWIS in accordance with the *ODW SDWIS Manual*.

For all other violations, including those based on data sources outside of SDWIS (such as inspection observations or exceedance of permit conditions), or otherwise not migrated in SDWIS, ODW staff must complete the following:

- Identify the violation, collect necessary data;
- Identify the citation in the *Waterworks Regulations*;
- Identify the associated public notification (PN) Tier and language requirements;
- Identify the NOAV language;
- Obtain preliminary concurrence from field office management;
- If a Tier 1 violation, then confer with the waterworks owner and share PN language on the same day as learning of the violation;
- Draft the NOAV and PN;
- Complete field office document review;
- Issue the NOAV; and
- Record the violation in SDWIS in accordance with the *ODW SDWIS Manual*.

#### **4. Public Notification**

The Safe Drinking Water Act includes public notification requirements to ensure that consumers know if there is a problem with their drinking water; see 42 U.S.C. § 300g-3(c), Public Notification Rule (PNR). EPA’s requirements for the PNR are codified in the National Primary

Drinking Water Regulations (NPDWR) at 40 C.F.R. § 141, Subpart Q. They are incorporated in the *Waterworks Regulations* at 12VAC5-590-540 and 12VAC5-590-546.

The goal of public notification is to protect public health by ensuring that consumers will know if there is a problem with their drinking water and inform them about what they can do to protect themselves. For notification to be effective, a waterworks must communicate with the consumers within its service area, providing information on failures or noncompliance relative to operational conditions at the waterworks. Whatever the reasons for the public notification, communication will be more effective if the waterworks' intent is to protect public health, educate, build trust with consumers through open and honest sharing of information, and establish an ongoing, positive relationship with the community it serves. The greater the commitment and the communication effort by the waterworks, the greater will be the consumers' trust in the delivery of safe water service and public health protection.

Even though public notification is the responsibility of the waterworks owner, ODW will facilitate the process by providing a public notice template with each NOAV to assist the waterworks in accomplishing the PNR requirements. A waterworks may develop its own communication strategy, but must comply with the requirements of 40 CFR § 141.201 et seq. and the *Waterworks Regulations* (12VAC5-590-540 and 12VAC5-590-546).

In general, waterworks owners must notify the consumers who drink their water under certain conditions, including:

- When the level of a contaminant has exceeded a drinking water standard (typically a primary maximum contaminant level (PMCL) or maximum residual disinfectant level (MRDL));
- When the waterworks fails to comply with a treatment technique (TT);
- When there is a waterborne disease outbreak;
- When the waterworks fails to test/monitor the water quality;
- When the waterworks fails to comply with conditions imposed on a variance or exemption granted to the waterworks; and
- When any other violations or situations with significant potential to have serious adverse effects on human health as a result of short-term exposure occur, as determined by the Commissioner or ODW on a case-by-case basis.

Depending on the severity of the violation or situation, the waterworks has from 24 hours to one year from the date of the NOAV letter to notify its consumers. The PNR requirements associated with the NOAVs are in addition to the annual consumer confidence report (CCR) delivered by community waterworks. (See Chapter 11 of this manual for more information and guidance on the CCR). Both EPA and ODW (through the NPDWR and Regulations, respectively) set strict requirements on the form, manner, content, and frequency of public notices, including the use of mandatory health effects language. Every public notice must comply with these parameters.

#### **4.1. Waterworks with Large Proportions of Non-English Speaking Population**

If a large proportion of a waterworks' consumers do not speak English, the PNR requires that notices must, at a minimum, contain information in the appropriate language(s) regarding the importance of the notice, or notices must provide a phone number or address where a translated notice or information or assistance in the appropriate language is available. The waterworks owner is responsible to provide such translations or assistance. See generally 40 CFR § 141.205(c)(2).

As policy, ODW recommends that waterworks that serve 20% or more non-English speakers provide notification in the language of the non-English population(s). ODW does not require waterworks to report the percentage of non-English speaking consumers they serve or track the percentage of non-English speakers for individual waterworks. It is the waterworks' responsibility to estimate the proportion of non-English speakers served. If the ODW field office disagrees with the owner's assessment, the field office may estimate the percentage of non-English speakers, using available data (such as published census demographic information for the waterworks service area) and the field office may provide translated public notification templates; however, this is not required. In many cases, the local health district where the waterworks is located will have capabilities to reach out to non-English speaking members of the community and may be able to help, particularly in Tier 1 situations.

#### **4.2. Public Notification Clock**

ODW's standard practice is that the "public notification clock" starts at the time when field office staff notify the waterworks owner of a condition or violation that requires public notice. For determining the required completion date of public notifications, ODW will enter the date of the NOAV in SDWIS, along with the tier designation. Field office staff must take action on a timely basis to allow the owner to meet the specified deadlines. This is particularly critical for protecting public health in Tier 1 situations. Upon learning of Tier 1 situations, ODW will notify the owner of the public notification requirements on the same day. For some Tier 1 situations, the waterworks owner must consult with the ODW field staff within 24 hours of learning about the violation.

#### **4.3. 24-Hour Consultation**

The Regulations, at 12VAC5-590-540, incorporate the federal PNR and requires waterworks owners to consult with the ODW field office within 24 hours of learning of a Tier 1 violation or situation, including an exceedance of the single sample turbidity limit specified in 12VAC5-590-530 D, in accordance with 12VAC5-590-540 A 1. The purpose of the consultation is for the ODW to help determine the necessary corrective actions and to establish repeat public notification requirements. In most, if not all, of these situations, the owner should have some prior warning of a possible violation that will allow action to be taken to avoid the violation, and thereby avoid the need for the 24-hour consultation after the violation occurs.

#### 4.4. Technical Assistance to Owners

To ensure that ODW provides a high degree of technical assistance to waterworks owners in (i) addressing potential and real public health threats and (ii) promptly notifying consumers of those threats, the field office must implement some or all of the actions listed below in general order of high priority to low priority:

- Provide to owners detailed technical assistance designed to address the cause of noncompliance and quickly return drinking water parameters to compliance with regulatory standards.
- Encourage owners to notify the field office immediately upon becoming aware of positive sample results, major operating problems, or other circumstances that indicate a potential Tier 1 situation, such as turbidity exceedance and no pressure or low pressure distribution system events.
- Assist waterworks owners in developing standard and emergency operating procedures to address acute public health threats.
- Make prior arrangements with the owner or laboratory to obtain necessary results and information, related to potential or actual violations, during non-routine business hours.
- Assist owners in developing the capability to effectively implement public notification to satisfy the federal requirements (e.g., preparation of a public notification action plan), especially for Tier 1 violations.

#### **5. NOAV Templates**

Templates associated with the six levels of public notification and consumer awareness (i.e., Tier 1, Tier 2, Tier 3, State-Only, Emergency, and Special)) are provided as attachments to this manual. Typically, a template will require some input by the field office staff to describe additional details that may be relevant and supportive of the alleged violation or situation. This approach maintains a high degree of standardization of the NOAV and the public notification/consumer awareness process. (Where NOAV templates are unavailable, the field staff should consult with the Division of Technical Services (DTS) to have the templates prepared, for inclusion into chapter 14 when the *Field Operations Manual* is eventually updated/revised.)

Typical NOAV templates were developed for potential violations or situations as outlined in Tables 1 through 5. Section 15 outlines field staff action when NOAV templates are not available for uncommon situations/violations and need to be developed.

Table 1 outlines the implementation of the Tier 1 NOAVs. (See also 12VAC5-590-540 A 1.)

**Note:** In some situations, a Tier 1 notification may also include an Emergency Notice as described in Section 7 of this chapter, e.g., detection of *E. coli* should also include a Boil Water Advisory (BWA), or a waterborne emergency including a Do Not Drink or Do Not Use advisory.

<b>SWDIS Code</b>	<b>Type of Violation or Situation</b>	<b>Attachment No.</b>
01	Exceeding the PMCL for Nitrate	FM-C14-T1.Attachment 1
01	Exceeding the PMCL for Nitrite	FM-C14-T1.Attachment 2
01	Exceeding the PMCL for Combined Nitrate + Nitrite	FM-C14-T1.Attachment 3
04	Failure to Collect a Confirmation <sup>1</sup> Sample for Nitrate	FM-C14-T1.Attachment 4
04	Failure to Collect a Confirmation <sup>1</sup> Sample for Nitrite	FM-C14-T1.Attachment 5
01	Noncommunity Waterworks Exceeding 20 mg/L Nitrate Limit <sup>2</sup> (see also Table 6)	FM-C14-T1.Attachment 6
1A	<i>E.coli</i> PMCL Exceedance and Level 2 Assessment Required	FM-C14-T1.Attachment 7
02	Exceeding the Average PMCL for Chlorite	FM-C14-T1.Attachment 8
2A	Failure to Test for <i>E. coli</i> After Any TC+ Repeat Sample	FM-C14-T1.Attachment 9
--	Waterborne Disease Outbreak <sup>3</sup> (see also Table 5)	FM-C14-T1.Attachment 10
--	Waterborne Emergency <sup>3</sup> (see also Table 5)	FM-C14-T1.Attachment 11
41	Failure to Consult with Dept. within 24 Hrs After a Single Exceedance of Turbidity Limit <sup>4</sup>	FM-C14-T1.Attachment 12
13	Exceeding the MRDL for Chlorine Dioxide <sup>5</sup>	FM-C14-T1.Attachment 13
05	Detection of <i>E. coli</i> , Enterococci, or Coliphage in Groundwater Source	FM-C14-T1.Attachment 14
05	Elevation of Public Notification from Tier 2 to Tier 1 <sup>4</sup>	FM-C14-T1.Attachment 15

1. Confirmation sample must be collected within 24 hours after learning that the initial sample exceeded the PMCL.  
2. Applies to a TNC waterworks granted permission by ODW to continue to exceed the PMCL of 10 mg/L but must not exceed 20 mg/L.

3. These are typically emergency situations, and are to be handled similar to Tier 1 public notification. Note that these are not violations of the NPDWRs; such as a water main break, chemical spill or overfeed, sewage spill, or natural disaster.

4. Failure to consult with ODW within 24 hours after a single exceedance of the turbidity limit, and ODW elevates the waterworks to Tier 1 status from a Tier 2 situation.

5. Chlorine dioxide MRDL exceedance when one or more of the samples collected from the distribution system exceeded the MRDL on the day after a chlorine dioxide measurement taken at the entrance to the distribution system exceeded the MRDL, or when required samples are not collected in the distribution system.

Table 2 outlines the implementation of the Tier 2 NOAVs. (See also 12VAC5-590-540 A 2.)

<b>SDWIS Code</b>	<b>Type of Violation or situation</b>	<b>Attachment No.</b>
02	Exceeding the PMCL for Any (Specify) Chemical Contaminant	FM-C14-T2.Attachment 1
33	Failure to Determine and Report Bin Classification (LT2) <sup>1</sup>	FM-C14-T2.Attachment 2
42	Failure to Provide or Install Additional Level of Treatment (LT2)	FM-C14-T2.Attachment 3
42	Failure to Achieve Required Treatment Credit (LT2)	FM-C14-T2.Attachment 4
42	Failure to Provide Filtration Treatment (SWTR)	FM-C14-T2.Attachment 5
41	Exceeding the Turbidity Treatment Limits (SWTR)	FM-C14-T2.Attachment 6
41	Failure to Meet Disinfection Treatment Requirements (SWTR)	FM-C14-T2.Attachment 7
58	Failure to Install Optimal Corrosion Control Treatment (LCR)	FM-C14-T2.Attachment 8
47	Uncovered Finished Water Storage Facility (LT2)	FM-C14-T2.Attachment 9
3D	Failure to Comply with a Required Testing Procedure	FM-C14-T2.Attachment 10
08	Failure to Comply with Terms and Conditions of an Exemption	FM-C14-T2.Attachment 11
08	Failure to Comply with Terms and Conditions of a Variance	FM-C14-T2.Attachment 12
02	Exceeding the PMCL for Fluoride	FM-C14-T2.Attachment 13
41	Failure to Maintain the Required 4-Log Treatment of Viruses for > 4 Hrs	FM-C14-T2.Attachment 14

<b>Table 2. Tier 2 Violations/Situations and Their Notice of Alleged Violations (NOAVs).</b>		
<b>SDWIS Code</b>	<b>Type of Violation or situation</b>	<b>Attachment No.</b>
2C	Failure to Take Corrective Actions within Required Time Frames (GWR)	FM-C14-T2.Attachment 15
02	Exceeding the PMCL of a Radiological Contaminant	FM-C14-T2.Attachment 16
11	Exceeding the MRDL for Chlorine Disinfection	FM-C14-T2.Attachment 17
11	Exceeding the MRDL for Chloramine Disinfection	FM-C14-T2.Attachment 18
02	LRAA PMCL Exceedance for DBPs - TTHMs or HAA5s (Stage 2)	FM-C14-T2.Attachment 19
58	Failure to Install Source Water Treatment (SoWT) (LCR)	FM-C14-T2.Attachment 20
59	Failure to Comply with Specified WQPs (LCR)	FM-C14-T2.Attachment 21
46	Inadequate Disinfection Byproduct Precursor Removal	FM-C14-T2.Attachment 22
12/B2	Failure to Provide a Qualified Operator at a Waterworks <sup>2</sup>	FM-C14-T2.Attachment 23
40	Failure to Properly Recycle Backwash Flows under FBRR	FM-C14-T2.Attachment 24
41	Failure to Maintain Residual Disinfectant Concentration (Stage 2)	FM-C14-T2.Attachment 25
2D	Failure to Complete an Approved Seasonal Waterworks Start-Up Procedure (RTCR)	FM-C14-T2.Attachment 26
2A	Failure to Complete a Level 1 Assessment (RTCR)	FM-C14-T2.Attachment 27
2B	Failure to Acknowledge Completion of a Level 2 Assessment (RTCR)	FM-C14-T2.Attachment 28
64	Failure to Implement the LSL Replacement Program (LCR)	FM-C14-T2.Attachment 29
05	Elevation of Public Notification from Tier 3 to Tier 2	FM-C14-T2.Attachment 30
32	Repeated Failure to Conduct Required Cryptosporidium Monitoring for Any Three Months (LT2) <sup>1</sup>	FM-C14-T2.Attachment 31
45	Failure to Address Significant Deficiencies by a Noncommunity Waterworks <sup>1</sup>	FM-C14-T2.Attachment 32

1. See also Table 6 regarding the handling of Special Notices.

2. Use Code 12 for waterworks that add disinfectant/chemical oxidant. Use Code B2 for waterworks that do not add disinfectant/chemical oxidant.

Table 3 outlines the implementation of the Tier 3 NOAVs. (See also 12VAC5-590-540 A 3.)

<b>Table 3. Tier 3 Violations/Situations and Their Notice of Alleged Violations (NOAVs).</b>		
<b>SDWIS Code</b>	<b>Type of Violation or situation</b>	<b>Attachment No.</b>
36	Minor Monitoring Filtration Failure/No Report (SWTR)	FM-C14-T3.Attachment 1
36	Major Monitoring Filtration Failure/No Report (SWTR)	FM-C14-T3.Attachment 2
5B	Recordkeeping Violations (RTCR)	FM-C14-T3.Attachment 3
3A	Minor Routine Monitoring Failure (RTCR)	FM-C14-T3.Attachment 4
3A	Major Routine Monitoring Failure (RTCR)	FM-C14-T3.Attachment 5
3B	Minor Additional Routine Monitoring Failure (RTCR)	FM-C14-T3.Attachment 6
3B	Major Additional Routine Monitoring Failure (RTCR)	FM-C14-T3.Attachment 7
4C	Failure to Submit Seasonal Start-up Procedures Certification Form (RTCR)	FM-C14-T3.Attachment 8
4A	Failure to Submit a Level 2 Assessment Report (RTCR)	FM-C14-T3.Attachment 9
4A	Failure to Submit a Level 1 Assessment Report (RTCR)	FM-C14-T3.Attachment 10
4F	Failure to Report on the Completion of Level 1 or Level 2 Corrective Actions (RTCR)	FM-C14-T3.Attachment 11
5A	Failure to Correct Sample Siting Plan Errors (RTCR)	FM-C14-T3.Attachment 12
3D	Monitoring Failure Due to Use of Unapproved Analytical Method	FM-C14-T3.Attachment 13
3D	Monitoring Failure Due to Improper Laboratory Certification	FM-C14-T3.Attachment 14
27	Minor Failure to Monitor for Disinfection Byproducts	FM-C14-T3.Attachment 15
27	Major Failure to Monitor for Disinfection Byproducts	FM-C14-T3.Attachment 16

<b>Table 3. Tier 3 Violations/Situations and Their Notice of Alleged Violations (NOAVs).</b>		
<b>SDWIS Code</b>	<b>Type of Violation or situation</b>	<b>Attachment No.</b>
32	Minor Source Monitoring Failure (LT2)	FM-C14-T3.Attachment 17
32	Major Source Monitoring Failure (LT2)	FM-C14-T3.Attachment 18
65	Failure to Deliver Lead Public Education Consumer Notice (LCR)	FM-C14-T3.Attachment 19
51	Failure to Conduct and Report Follow-Up-Routine Tap Monitoring (LCR)	FM-C14-T3.Attachment 20
51	Failure to Conduct Initial Pb and Cu Tap Sampling (LCR)	FM-C14-T3.Attachment 21
31	Minor Additional Triggered Monitoring Failure (GWR)	FM-C14-T3.Attachment 22
31	Major Additional Triggered Monitoring Failure (GWR)	FM-C14-T3.Attachment 23
5	Failure to Notify State When System Fails to Meet State-Specified Requirements (GWR)	FM-C14-T3.Attachment 24
32	Failure to Submit the Microbial Toolbox Report	FM-C14-T3.Attachment 25
33	Failure to Submit Bin Classification and Treatment Requirements Report (LT2)	FM-C14-T3.Attachment 26
35	Failure to Submit an OEL Report for TTHMs	FM-C14-T3.Attachment 27
35	Failure to Submit an OEL Report for HAA5s	FM-C14-T3.Attachment 28
4E	Failure to Report an <i>E. coli</i> PMCL Violation	FM-C14-T3.Attachment 29
4D	Failure to Report the Occurrence of an EC+ Sample Result	FM-C14-T3.Attachment 30
57	Failure to Provide an OCCT Recommendation/Study	FM-C14-T3.Attachment 31
57	Failure to Provide a Source Water Treatment (SoWT) Proposal	FM-C14-T3.Attachment 32
29	Failure to Produce a Filter Assessment.	FM-C14-T3.Attachment 33
C9	Failure to Post Notice on Fluoride Level <sup>1</sup> > SMCL	FM-C14-T3.Attachment 34
53	Failure to Perform WQP Monitoring/Reporting	FM-C14-T3.Attachment 35
36	Failure to Perform Minor Routine Turbidity Monitoring	FM-C14-T3.Attachment 36
73	Failure to Notify Wholesaler Waterworks of a TC+ Result.	FM-C14-T3.Attachment 37
73	Failure to Notify Consecutive Waterworks of an EC+ Result	FM-C14-T3.Attachment 38
3	Failure to Monitor for VOCs	FM-C14-T3.Attachment 39
3	Failure to Monitor for Turbidity	FM-C14-T3.Attachment 40
3	Failure to Monitor for SOCs	FM-C14-T3.Attachment 41
3	Failure to Monitor for Radiological Contaminants	FM-C14-T3.Attachment 42
3	Failure to Monitor for Nitrite	FM-C14-T3.Attachment 43
3	Failure to Monitor for Nitrate	FM-C14-T3.Attachment 44
3	Failure to Monitor for Combined Nitrate-Nitrite as Nitrogen	FM-C14-T3.Attachment 45
27	Failure to Monitor for Chlorine Dioxide	FM-C14-T3.Attachment 46
3	Failure to Monitor for IOCs	FM-C14-T3.Attachment 47
3	Failure to Monitor for Bromate	FM-C14-T3.Attachment 48
57	Failure to Install and Operate OCCT (LCR)	FM-C14-T3.Attachment 49
32	Failure to Have a Monitoring Plan (LT2)	FM-C14-T3.Attachment 50
27	Failure to Establish a Monitoring Plan for Disinfection Byproducts	FM-C14-T3.Attachment 51
C9	Failure to Disclose Terms and Conditions under an Exemption	FM-C14-T3.Attachment 52
C9	Failure to Disclose Terms and Conditions under a Variance	FM-C14-T3.Attachment 53
71	Failure to Deliver the CCR by July 1	FM-C14-T3.Attachment 54
51	Failure to Conduct the Pb and Cu Initial Tap Sampling (LCR)	FM-C14-T3.Attachment 55
56	Failure to Conduct Follow-Up M-R After Installation of Source Water Treatment (LCR)	FM-C14-T3.Attachment 56
52	Failure to Conduct Follow-Up M-R After Installation of Optimum Corrosion Control Treatment (LCR)	FM-C14-T3.Attachment 57
3D	Failure to Comply with a Testing Procedure for any Contaminant	FM-C14-T3.Attachment 58
32	Major Failure to Collect Any Source Water Monitoring Samples (LT2)	FM-C14-T3.Attachment 59



<b>SDWIS Code</b>	<b>Type of Violation or situation</b>	<b>Attachment No.</b>
32	Minor Failure to Collect All Source Water Monitoring Samples (LT2)	FM-C14-T3.Attachment 60
29	Failure to Arrange a Comprehensive Performance Evaluation (CPE)	FM-C14-T3.Attachment 61
72	Failure of the CCR to Meet Adequacy, Availability, and Content Requirements	FM-C14-T3.Attachment 62
C9	Failure to Provide Notice on the Availability of Unregulated Contaminant Monitoring Results <sup>1</sup>	FM-C14-T3.Attachment 63
C3	Failure to Develop a Disinfection Profile or Calculate a Disinfection Benchmark	FM-C14-T3.Attachment 64

1. See also Table 6 regarding the handling of Special Notices.

### **6. State-Only Violations**

In accordance with 12VAC5-590-540 A 4, ODW has established policy and procedures related to noncompliance with requirements of the Regulations, which are not based on requirements in the NPDWRs. Violation types and other data management requirements are specifically designated to facilitate data entry, tracking, and enforcement actions. Table 4 lists the specific violations codes and descriptions in SDWIS and the implementation of these NOAVs. Since the violations cited in Table 4 are not related to the NPDWRs, it is important to recognize and understand the “Triggering Event”, as this is what helps to determine compliance or noncompliance. Use of the information in the attached chart (FM-C14-Attachment-Chart A) will help guide the compliance determination process. Additionally, FM-C14-Attachment-Chart B provides “reliability problem, Type C3” examples to facilitate this process. All compliance and enforcement actions (i.e., issuance of NOAVs, etc.) shall be entered into SDWIS.

<b>SDWIS Code</b>	<b>Description</b>	<b>Tier</b>	<b>Attachment No.</b>
A0	No Waterworks Operation Permit	NA	FM-C14-T4.Attachment 1
A1	No Construction Permit for Modification	NA	FM-C14-T4.Attachment 2
A2	Exceeding Waterworks Permitted Design Capacity	3	FM-C14-T4.Attachment 3
A3	Operating Facility Beyond Permit Conditions	3	FM-C14-T4.Attachment 4
A4	New Waterworks or Components in Service without Approval	NA	FM-C14-T4.Attachment 5
B2	Lacks Properly Licensed Operator	3	FM-C14-T4.Attachment 6
B3	Failure to Follow Monitoring Plan		No Template
B4	No Waterworks Business Operations Plan (WBOP)	NA	FM-C14-T4.Attachment 7
B5	Failure to Establish a Cross-Connection Control Program	NA	FM-C14-T4.Attachment 8
B6	Failure to Implement Approved Cross-Connection Control Program	NA	FM-C14-T4.Attachment 9
B7	Failure to Pay Waterworks Operations Fee	NA	FM-C14-T4.Attachment 10
C1	Failure to Report by the 10 <sup>th</sup> Day of Month	NA	FM-C14-T4.Attachment 11
C2	State Monitoring Violation <sup>1</sup>		No Template
C3	Failure to Perform the Responsibilities of the Waterworks Owner <sup>2</sup>	3	FM-C14-T4.Attachment 12
C4	Lack of Monitoring Equipment	3	FM-C14-T4.Attachment 13
C5	Failure to Meter Total Water Production –CWS Waterworks	NA	FM-C14-T4.Attachment 14
C5	Failure to Meter Total Water Production –NTNC Waterworks	NA	FM-C14-T4.Attachment 15
C5	Failure to Meter Total Water Production –TNC Waterworks	NA	FM-C14-T4.Attachment 16

C6	Less Than 20 psig at Service Connection	3	FM-C14-T4.Attachment 17
C8	Turbidity Performance		No Template
C9	Failure to Notify Consumers	NA	No Template

1. Some significant deficiencies can also be handled as State violations depending on their severity.

2. Reliability problems include (i) failure to reliably maintain treatment or chemical addition – chlorination; (ii) failure to reliably maintain treatment or chemical addition – corrosion control; (iii) failure to maintain infrastructure – well seal; (iv) failure to maintain infrastructure – storage tanks; and (v) failure to maintain infrastructure – distribution system.

When field office staff identify a “State-Only violation,” for example, in a sanitary survey, the field office should issue an NOAV concurrently with the sanitary survey report but no later than 30 days after its determination. Field offices may determine that certain State-Only violations are also significant deficiencies. When the Deputy Field Director confirms that the item is also a significant deficiency, then the significant deficiency data must be entered into SDWIS, and associated (or linked) to the violation (see Chapter 1 – Sanitary Surveys of the *Field Operations Manual*).

As a matter of policy, the ODW field offices may require waterworks owners to complete public notification for State-Only violations, as is done for Tier 2 violations, considering the tier designation in Table 4 and the following, on a case-by-case basis:

- Violations that caused an actual or potential water quality problem;
- Violations related to the ability to satisfy the demand for water or related to a permit condition;
- Violations related to a shortcut or intentional act such as alleged falsification relating to sampling or monitoring information;
- Field offices may require public notifications for other violations not shown on Table 4;
- Field offices may determine public notification is not necessary if the violation had no potential impact on the quantity and quality of water delivered by the waterworks.

Community waterworks may use the next CCR to complete public notification for the Tier 3 violations as long as the timing requirements are met.

## **7. Emergency Notices**

Occasionally, it becomes necessary to take deliberate action to issue an emergency notice resulting from situations not involving violations of a drinking water standard or a treatment technique. Table 5 outlines the incidents or situations that would warrant emergency notices to be issued. Under these circumstances, waterworks need to notify their consumers that conditions exist that make or potentially make the water unsafe for human consumption. Emergency notices typically are a precautionary measure, and depending on the situation, the waterworks may notify consumers that they should boil the water prior to use (to eliminate possible or actual bacteriological contamination) or not use the water at all. These notices are known as Emergency Notices and include “Boil Water Advisories,” “Do Not Drink,” and “Do Not Use.”

These notices should be issued in a prudent manner and only when there is sufficient justification, particularly bacteriological and unregulated contaminants. The field office must

obtain concurrence from the Field Director and the Local Health Director. Excessive issuance of notices may cause needless alarm and may result in decreased public attention and responsiveness to future notices. These notices are described as follows:

### **7.1. Boil Water Notice (BWN) or Boil Water Advisory (BWA)**

The BWN or BWA is used to inform customers to boil their water before consumption or usage in food and beverage preparations. The BWA should be used for precautionary advisories and the BWN when there is known contamination (see “Glossary of Terms”). The Centers for Disease Control and Prevention (CDC) and the EPA have indicated that a rolling boil for a period of one minute is sufficient to render drinking water microbiologically safe, free of bacteria, viruses, and protozoa. *Note:* A BWN or BWA may be inappropriate for many noncommunity waterworks, where the consumer has no ability to boil the water. For these waterworks, a “Do Not Drink” or “Do Not Use” advisory should be issued. The notice should indicate the location of alternate water sources.

### **7.2. “Do Not Drink” Notice**

The “Do Not Drink” notice is used to inform customers not to use their tap water for consumption or in food and beverage preparations. This notice indicates the presence (or possible presence) of a contaminant that can/may render the drinking water unsafe. Boiling will likely have no effect on the water quality or will actually further impair the water quality. The water may be used for other purposes such as toilet flushing, bathing, laundry, etc. The notice should indicate the location of alternate water sources.

As noted above, ODW may require a “Do Not Drink” notice instead of a BWA if waterworks customers have no way to boil the water, for example, a noncommunity waterworks, such as a park.

### **7.3. “Do Not Use” Notice**

The “Do Not Use” notice is used to inform customers not to use their tap water for any reason. This notice indicates the presence (or possible presence) of a contaminant that can/may render the water unsafe for human contact or inhalation of vapors. Boiling will likely have no effect on the water quality. The water may not be used for other purposes such as toilet flushing, bathing, laundry, irrigation, etc. The notice should indicate the location of alternative water sources.

### **7.4. Rescission Notice**

The “Rescission” notice is used to inform customers that a previously issued emergency notice has been rescinded or lifted; i.e., that the “drinking water problem has been corrected”. The notice is an indication that the incident that caused the prior notice to be issued was resolved. The rescission notice must tell customers what they must do (if anything) before using their water for consumption and other purposes.

## 8. Situations That Warrant Emergency Notices

Because of the potential risk to public health if consumers are not aware of the conditions that result in a boil water advisory, do not drink advisory, etc., waterworks should follow “Tier 1” timelines and notification requirements; i.e., within a 24-hour period. Table 5 provides a list of more common situations where water quality is not known analytically, but there is a high probability that the water quality is impaired. For these situations, an emergency notice should be used.

<b>Table 5. Incidents/Situations Involving Emergency Notices</b>	
<b>Incident/Situations at the Waterworks</b>	<b>Attachment No.</b>
Suspected Microbial Contamination <sup>1</sup>	FM-C14-T5.Attachment 1
Elevated Turbidities <sup>1</sup> at Filters	FM-C14-T5.Attachment 2
Zero or Negative System Pressure <sup>1</sup> at Waterworks	FM-C14-T5.Attachment 3
Low System Pressure <sup>1</sup> at Waterworks	FM-C14-T5.Attachment 4
Major Water Main Breaks or Interruptions <sup>1</sup>	FM-C14-T5.Attachment 5
Flooding of Wells <sup>1</sup>	FM-C14-T5.Attachment 6
Groundwater Source Determined to be GUDI	FM-C14-T5.Attachment 7
GUDI Source Requiring At Least 4-Log Inactivation of Viruses <sup>1</sup>	FM-C14-T5.Attachment 8
Known Harmful Chemical Substance(s) Suspected in Drinking Water (if ingested); e.g., contamination from chemical spill, or the unapproved use of a source without water quality data. <sup>2</sup>	FM-C14-T5.Attachment 9
Unknown Substance(s) Suspected in the Drinking Water; e.g., any unknown substances or suspected weapon of mass destruction (WMD) <sup>3</sup>	FM-C14-T5.Attachment 10
Rescission of an Emergency Notice - Drinking Water Problem Corrected; i.e., lifting of the emergency notice <sup>4</sup>	FM-C14-T5.Attachment 11

### Notes to Table 5

1. Consider use of the “Boil Water Advisory” as warranted by the prevailing conditions (see discussion below for further details).
2. The “Do Not Drink” notice is appropriate.
3. The “Do Not Use” notice is appropriate.
4. Use the “Rescission” notice when the problem no longer exists; i.e., it was corrected.

Additionally, the attached chart (FM-C14-Attachment-Chart C) requires the field staff to document the particular instances (i.e., “fill-in-the-blank” with details) when such emergency notices are issued, the general wording and content of such notices, and the monitoring and clearance activities, which must be conducted before rescinding or “lifting” the notices. The situations outlined in Table 5 above are described in further detail below:

### 8.1. Suspected Microbiological Contamination

A boil water advisory (BWA) shall be issued when multiple water samples indicate the presence of fecal coliform bacteria, *E. coli*, or waterborne pathogens (or their indicators); see also 12VAC5-590-380 of the *Waterworks Regulations*. Such a presence indicates an acute threat to the public's health and warrants immediate action by the waterworks and the VDH (including collaboration with the local health department) to alert consumers. The ODW field staff should coordinate with the local health department officials to have a “unified” alert, and to optimize the messaging and delivery of the emergency notification.

## **8.2. Elevated Filter Turbidities**

Filtered water (point of entry) turbidity levels exceeding 1.0 NTU in conjunction with any of the following factors warrant the issuance of a BWN:

- Abrupt changes in process parameters such as turbidity, particle counts, and disinfectant residuals may indicate a compromise in the water treatment process and a potential for increased microbial risk to consumers;
- Abrupt changes in the quality of the source water which cannot be accommodated by the existing treatment processes;
- A disruption in the treatment processes; or
- The presence of pathogenic microbes in the finished water.

## **8.3. Zero or Negative Pressure**

A “precautionary” BWA should be issued in cases where pressure in the water distribution system (or portions thereof) has been reduced to zero, or a negative pressure has occurred. Refer to Chapter 12 – “Oversight of Water Main Breaks” of the *Field Operations Manual* for information for waterworks about when a BWA would be expected. Examples of such events include water treatment plants or pump stations shutting down due to equipment failure, power outages, emptying of storage tanks, or draining of the system during waterline breaks or fire-fighting events. A BWA covering properly isolated portions of the waterworks’ distribution system may be considered on a case-by-case basis. Waterworks should consult with field office staff to make such determinations.

## **8.4. Low Water Pressures**

A drop in water pressure in a water distribution system is a signal of conditions which could allow contamination to enter the water system through backflow by back-pressure or back-siphonage. Water pressure falling below the regulated service level of 20 psig does not, in the absence of other aggravating factors, necessarily constitute an imminent health hazard. A “precautionary” BWA may be issued in such cases when there is a historical record of inadequate disinfectant maintenance in the water distribution system or excessive leakage, or analytical records indicate persistent microbiological or turbidity problems or an inadequate backflow prevention program exists. The decision to issue the BWA shall be made on a case-by-case basis and based upon professional judgment using all available data that may indicate the extent of the problem. Such data as the type of facilities affected, the duration of the low-pressure condition, and the possibility of infiltration into the waterworks should be considered.

## **8.5. Major Water Main Breaks or Interruptions**

A “precautionary” BWA should be issued in cases of major water main breaks or planned distribution system interruptions, which are deemed an imminent public health threat or which will affect the bacteriological quality of the drinking water unless the waterworks can demonstrate, by sound engineering judgment, that the integrity of the waterworks is being

maintained. Assurance from the waterworks that an outflow of water was continuously maintained and no non-potable water, soil, or other potentially contaminated material has entered, or may enter, the broken water main during the event, will serve to demonstrate that the integrity of the system is being maintained. In cases of routine breaks with brief interruption in service, the affected water main should be immediately repaired, flushed, disinfected, sampled, and monitored for chlorine residual according to ANSI/AWWA Standard C651, *Disinfecting Water Mains*. Even if these measures are taken, advisories of certain activities (such as water main repairs, water line cleaning/flushing programs, etc.) should be considered if temporary changes in water quality are expected to occur. Refer to Chapter 12 – “Oversight of Water Main Breaks” for more information.

## **8.6. Flooding of Wells**

BWN should be issued where surface water inundation of a water supply well has occurred. The presence of disinfectant resistant strains of protozoa such as *Giardia* or *Cryptosporidium* warrant special precautions to be taken until the microbiological integrity of the waterworks is verified by means of clean bacteriological samples.

## **8.7. Surface Water Influenced Groundwater Sources**

Waterworks utilizing groundwater sources deemed to be under the direct influence of surface water are required to distribute a BWN during the interim period before installing the required filtration and disinfection equipment necessary to meet the groundwater rule treatment technique (4-log inactivation of virus). See 12VAC5-590-395 A 3.

## **8.8. Sources under Step 3 GUDI Evaluations**

Owners with sources under Step 3 GUDI Evaluation described in 12VAC5-590-430 B 3 shall take interim measures per 12VAC5-590-430 C, including issuing a BWN until 4-log inactivation treatment of virus is installed and in operation. This BWN is not necessary if the owner takes the source out of service.

## **8.9. Introduction of Known Contaminants**

A “Do Not Drink” notice shall be issued when there is (suspected or confirmed) accidental or intentional introduction of a known chemical contaminant that is harmful when ingested. Authority to require a do not drink notice in this situation comes from 12VAC5-590-540 A 1 1 and A 4.

## **8.10. Introduction of Unknown (or Certain Known) Contaminants**

A “Do Not Use” notice shall be issued when there is (suspected or confirmed) accidental or intentional introduction of an unknown contaminant whose effects are unknown. A “Do Not Use” notice will also be issued when there is (suspected or confirmed) accidental or intentional introduction of a known contaminant that is harmful when it comes in contact with the body or

when its vapor is inhaled. Again, the authority for requiring the notice comes from 12VAC5-590-540 A 1 1 and A 4.

**8.11. Other Circumstances (Evaluated on a Case-by-case Basis)**

Emergency notices may be warranted for localized or widespread disease outbreaks of unknown cause, whether or not water is known to be the source of disease. See 12VAC5-590-540 A 1 1 and A 4.

**9. Special Notices**

The *Waterworks Regulations* at subsections 12VAC5-590-540 F through K define Special Notice requirements under the Public Notification Rule (PNR). These Special Notices are not necessarily accompanied by a NOAV. The Special Notice circumstances are summarized in Table 6.

<b>Table 6. Special Notices</b>			
<b>12VAC5-590-540</b>	<b>Description</b>	<b>Tier Notice</b>	<b>Attachment No.</b>
F	Notice on the Availability of Unregulated Contaminant Monitoring Results	3	Use template FM-C14-T3. Attachment 63
G	Notice on Exceeding the SMCL for Fluoride	3	Use template FM-C14-T3. Attachment 34
H	Notice on Exceeding the Nitrate PMCL by a Noncommunity Waterworks	1	Use template FM-C14-T1. Attachment 6
I	Notice on the Repeated Failure to Conduct Source Water Sampling for Cryptosporidium	2	Use template FM-C14-T2. Attachment 31
J	Notice on the Failure to Determine Bin Classification or Mean Cryptosporidium Levels	2	Use template FM-C14-T2. Attachment 2
K	Notice on the Failure to Address Significant Deficiencies by a Noncommunity Waterworks	2	Use template FM-C14-T2. Attachment 32

*The Special Notices are incorporated in the assigned NOAV templates. The requirements are specific to each situation, and include required language in some cases. Refer to the appropriate subsections at 12VAC5-590-540 for more details.*

**10. Public Notice Contents**

Each public notice for PMCL, MRDL, and TT violations and other situations requiring a public notice shall include the following ten (10) elements (12VAC5-590-540 D):

- i. A description of the violation, exceedance, or situation, including the contaminants of concern, and (as applicable) the contaminant levels;
- ii. When the violation, exceedance, or situation occurred;
- iii. Any potential adverse health effects from the violation, exceedance, or situation, including the standard language where applicable;

- iv. The population at risk, including subpopulations particularly vulnerable if exposed to the contaminant in their drinking water;
- v. Whether alternative water supplies should be used;
- vi. What actions consumers should take, including when they should seek medical help, if known;
- vii. What the owner is doing to correct the violation, exceedance, or situation;
- viii. When the owner expects the waterworks to return to compliance or resolve the situation;
- ix. The name, business address, and phone number of the owner, operator, or designee as a source of additional information concerning the notice; and
- x. A statement to encourage the notice recipient to distribute the public notice to other persons served, using the standard language under subdivision 5 c of this subsection, where applicable.

Public notices relating to waterworks granted a variance or exemption have different requirements. Refer to 12VAC5-590-540 D 2. Public notices for a waterworks that violates the conditions of a variance or an exemption shall contain the 10 elements listed above.

### **11. Delivery Methods and Deadlines**

All levels of public notification must be distributed in a manner that is “reasonably calculated” to reach all persons served within the time limitations. (See 12VAC5-590-540.) This distribution requirement is interpreted to be more stringent than the good-faith effort distribution requirement in the Consumer Confidence Report (CCR) Rule, and, therefore, a single delivery method may not be sufficient. The owner should utilize at least two of the delivery methods listed below. Additional guidance is described in the NOAV transmittal letter except in those cases where it is clear that a single delivery method is sufficient. For Tier 1 violations or situations, the field office staff may have to immediately distribute the public notification if the owner refuses to do so. To reach all persons served (i.e., residential, transient, and nontransient populations), the delivery methods may include, but are not limited to:

- Broadcast media – radio, television, or reverse 911 telephone,
- Mail – using the US Postal Service
- Posting in conspicuous locations throughout the area served by the waterworks
- Hand delivery of the notice to persons served by the waterworks
- Newspaper of general circulation in the area served by the waterworks
- Newsletter associated with the community/area served by the waterworks
- Internet – if the waterworks has an official website
- E-mail – if the waterworks has an email database of all the persons served
- Multiple copies provided to apartment owners or large private employers
- Delivery to community organizations
- Any ODW-approved delivery method

The waterworks owner should complete distribution of the public notification within the specified time noted in the NOAV transmittal letter; however, ODW will consider the owner to have satisfied the requirements as long as the primary delivery method is completed and any secondary method(s) initiated within the allotted time. Although the federal rule allows the State



to extend the public notification deadlines for Tiers 2 and 3, as policy, ODW has decided not to grant extensions under any circumstances.

Note: Notices shall be re-issued in accordance with the PNR (if applicable) or as necessary to ensure the public is aware of an unresolved problem or potential danger. Repeat notices are required for unresolved violations as follows, pursuant to the Regulations at 12VAC5-590-540 C:

- Tier 1 – Requirements for issuing repeat or additional notices are determined by the field office, based on consultation with the owner and expected duration of the violation. For more information, see 12VAC5-590-540 C 1.
- Tier 2 – Repeat the public notice every three months as long as the violation, exceedance, or situation persists, unless the ODW determines that appropriate circumstances warrant a different repeat notice frequency. In no circumstance shall the repeat notice be given less frequently than once per year. For more information, see 12VAC5-590-540 C 2.
- Tier 3 – Repeat the public notice annually for as long as the violation, exceedance, variance, exemption, or other situation persists. (12VAC5-590-540 C 3).

### **12. Lifting of Emergency Notices (Rescission Notice)**

It shall be the responsibility of the entity issuing the emergency notice to rescind or lift the notice through the use of a “Rescission” notice. This entity can be the waterworks owner or his/her assigned representative. The “Rescission” notice shall indicate any of the special precautions or necessary steps that the customers should take (if any) before using their water.

For a “precautionary” BWA, the following is required: receipt of a minimum of two satisfactory representative bacteriological sample results, supplemented by appropriate disinfection residual levels and other water quality parameters as necessary (such as turbidity) indicating that the water is safe and has the concurrence of the VDH (i.e., ODW or Local Health Department).

BWAs imposed on waterworks with groundwater sources determined to be under the influence of surface water can be rescinded when the waterworks installs acceptable filtration and disinfection treatment per Section 12VAC5-590-395 A.

The criteria for lifting “Do Not Drink” and “Do Not Use” notices will normally be established on a case-by-case basis, depending on the type of contaminant and the remedy used for removing or controlling it.

Note: As is required during the issuance of such notices, all parties involved must be adequately informed of the rescission of the notice.

### **13. Elevating Violations from One Tier to Another Tier**

The PNR and *Waterworks Regulations* allow violations to be elevated from one tier to another based on potential health impacts and persistence of the violation. The following across-the-board tier elevations are established as a matter of ODW policy:

- **Tier 2 to Tier 1** – Exceedance of the single sample turbidity limit as described in the SWTR and IESWTR where the exceedance is indicative of an acute public health risk (this situation is specifically addressed in the rule; i.e., see 12VAC5-590-540 C 2 c);
- **Tier 3 to Tier 2** (two determinations):
  - Failure to collect any coliform repeat samples during the compliance period following an *E.coli*-positive routine sample;
  - Failure to collect any routine coliform samples in two consecutive compliance periods (the first is a Tier 3 and the second is a Tier 2).

The ODW field offices may elevate violations in situations not specified above on a case-by-case basis (see 12VAC5-590-540 A 4) after consultation with the Director of the Division of Technical Services (DTS) and the Director of the Division of Compliance and Enforcement.

#### **14. Public Notification Compliance**

All appropriate violation information for the underlying Tier 1, Tier 2, Tier 3, and State-Only violations must be entered into SDWIS at the appropriate time by the author or assignee of such violations and their subsequent issuance. Special Notices must also be entered and tracked in SDWIS, but are not necessarily accompanied by an NOAV. The field offices will track and determine compliance with the public notification requirements. If necessary, each field office may develop and maintain a simple tracking system serving as a “reminder” for staff to meet the recordkeeping needs consistent with SDWIS.

Tier 1, Tier 2, Tier 3, State-Only, and Special Notice public notification compliance will be tracked and determined in three areas: (1) timeliness, (2) manner of distribution to reach all consumers, and (3) submission of a signed certification form. The three areas apply to both the initial public notification and repeat public notification. The ODW staff should exercise careful discretion before deciding that a single delivery method is not sufficient. The public notification certification form will be the focal point to determine if the timeliness and distribution requirements were met. A signed certification form is required within 10 days of completing the public notification. Missing the Tier 2 public notification delivery date or the Tier 2 certification form submittal date by a few days (no more than 5) will not normally be considered a violation. Beyond 5 days, any failure to complete public notification will result in a NOAV issued without a public notice.

The PNR requires the owner to send a copy of the actual public notification with the signed certification back to the ODW field staff within 10 days of completing the delivery of the public notification. ODW will consider the failure to submit a copy of a Tier 2 or Tier 3 public notification as a violation; i.e., Type 75. Failure to provide a copy of a Tier 1 or a Special Notice public notification is a violation and must be handled promptly. ODW will interpret failure to return the certification form to mean that the public notification was not completed.

Data on NOAVs and related PNs (Tier 1, Tier 2, Tier 3, and State-Only), enforcement actions, public notification completion, and compliance will be recorded in SDWIS in accordance with standard SDWIS instructions. As a matter of routine, all NOAV tracking and oversight should go through the Compliance Specialist.

ODW staff will document issuance and rescission of special notices using the *VDH-ODW Water Advisory and Power Outage Online Reporting Tool* (Online Reporting Tool). Refer to Chapter 6 – “Status Reporting of Waterworks” of the *Field Operations Manual* for detailed procedures for documenting issuance and rescission of special notices.

### **15. Requesting DTS Assistance on New NOAV Templates**

In the event that a NOAV template is not available as described in the foregoing tables, and a new template is needed, the field staff must contact the DTS and request that a new NOAV template be developed promptly. This procedure will maintain the standardization of the enforcement and public notification processes

### **Appendix**

FM-C14-Attachment-Chart A. VAC Type Violations listed in SDWIS  
FM-C14-Attachment-Chart B. VAC Violation Code Type C3 - Reliability Problem Examples  
FM-C14-Attachment-Chart C. Checklist for Issuance and Tracking Emergency Notices  
FM-C14-T1.Attachment 1. Exceeding the PMCL for Nitrate  
FM-C14-T1.Attachment 2. Exceeding the PMCL for Nitrite  
FM-C14-T1.Attachment 3. Exceeding the PMCL for Combined Nitrate + Nitrite  
FM-C14-T1.Attachment 4. Failure to Collect a Confirmation Sample for Nitrate  
FM-C14-T1.Attachment 5. Failure to Collect a Confirmation Sample for Nitrite  
FM-C14-T1.Attachment 6. Noncommunity Waterworks Exceeding 20 mg/L Nitrite Limit (see also Table 6)  
FM-C14-T1.Attachment 7. *E.coli* PMCL Exceedance and Level 2 Assessment Required  
FM-C14-T1.Attachment 8. Exceeding the Average PMCL for Chlorite  
FM-C14-T1.Attachment 9. Failure to Test for *E. coli* After Any TC+ Repeat Sample  
FM-C14-T1.Attachment 10. Waterborne Disease Outbreak (see also Table 5)  
FM-C14-T1.Attachment 11. Waterborne Emergency (see also Table 5)  
FM-C14-T1.Attachment 12. Failure to Consult with Dept. within 24 Hrs after a Single Exceedance of Turbidity Limit  
FM-C14-T1.Attachment 13. Exceeding the MRDL for Chlorine Dioxide  
FM-C14-T1.Attachment 14. Detection of *E. coli*, Enterococci, or Coliphage in Groundwater Source  
FM-C14-T1.Attachment 15. Elevation of Public Notification from Tier 2 to Tier 1  
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FM-C14-T2.Attachment 2. Failure to Determine and Report Bin Classification (LT2)  
FM-C14-T2.Attachment 3. Failure to Provide/Install Additional Level of Treatment (LT2)  
FM-C14-T2.Attachment 4. Failure to Achieve Required Treatment Credit (LT2)  
FM-C14-T2.Attachment 5. Failure to Provide Filtration Treatment (SWTR)  
FM-C14-T2.Attachment 6. Exceedance of Turbidity Treatment Limits (SWTR)  
FM-C14-T2.Attachment 7. Failure to Meet Disinfection Treatment Requirements (SWTR)  
FM-C14-T2.Attachment 8. Failure to Install Optimal Corrosion Control Treatment (LCR)  
FM-C14-T2.Attachment 9. Uncovered Finished Water Storage Facility (LT2)  
FM-C14-T2.Attachment 10. Failure to Comply with a Required Testing Procedure  
FM-C14-T2.Attachment 11. Failure to Comply with Terms and Conditions of an Exemption  
FM-C14-T2.Attachment 12. Failure to Comply with Terms and Conditions of a Variance  
FM-C14-T2.Attachment 13. Exceeding the PMCL for Fluoride  
FM-C14-T2.Attachment 14. Failure to Maintain the Required 4-Log Treatment of Viruses for > 4 Hours  
FM-C14-T2.Attachment 15. Failure to Take Corrective Actions within Required Time Frames (GWR)  
FM-C14-T2.Attachment 16. Exceeding the PMCL of a Radiological Contaminant  
FM-C14-T2.Attachment 17. Exceeding the MRDL for Chlorine Disinfection  
FM-C14-T2.Attachment 18. Exceeding the MRDL for Chloramine Disinfection  
FM-C14-T2.Attachment 19. LRAA PMCL Exceedance for DBPs - TTHMs or HAA5s (Stage 2)  
FM-C14-T2.Attachment 20. Failure to Install Source Water Treatment (SoWT) (LCR)  
FM-C14-T2.Attachment 21. Failure to Comply with Specified WQPs (LCR)

FM-C14-T2.Attachment 22. Inadequate Disinfection Byproduct Precursor Removal  
 FM-C14-T2.Attachment 23. Failure to Provide a Qualified Operator at a Waterworks  
 FM-C14-T2.Attachment 24. Failure to Properly Recycle Backwash Flows (FBRR)  
 FM-C14-T2.Attachment 25. Failure to Maintain Residual Disinfectant Concentration (Stage 2)  
 FM-C14-T2.Attachment 26. Failure to Complete an Approved Seasonal Waterworks Start-Up Procedure  
 FM-C14-T2.Attachment 27. Failure to Complete a Level 1 Assessment (RTCR)  
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 FM-C14-T2.Attachment 30. Elevation of Public Notification from Tier 3 to Tier 2  
 FM-C14-T2.Attachment 31. Failure to Conduct Required Cryptosporidium Monitoring for Any Three Months  
 FM-C14-T2.Attachment 32. Failure to Address Significant Deficiencies by a Noncommunity Waterworks  
 FM-C14-T3.Attachment 1. Minor Monitoring Filtration Failure/No Report (SWTR)  
 FM-C14-T3.Attachment 2. Major Monitoring Filtration Failure/No Report (SWTR)  
 FM-C14-T3.Attachment 3. Recordkeeping Failures (RTCR)  
 FM-C14-T3.Attachment 4. Minor Routine Monitoring Failure (RTCR)  
 FM-C14-T3.Attachment 5. Major Routine Monitoring Failure (RTCR)  
 FM-C14-T3.Attachment 6. Minor Additional Routine Monitoring Failure (RTCR)  
 FM-C14-T3.Attachment 7. Major Additional Routine Monitoring Failure (RTCR)  
 FM-C14-T3.Attachment 8. Failure to Submit Seasonal Start-up Procedures Certification Form (RTCR)  
 FM-C14-T3.Attachment 9. Failure to Submit a Level 2 Assessment Report (RTCR)  
 FM-C14-T3.Attachment 10. Failure to Submit a Level 1 Assessment Report (RTCR)  
 FM-C14-T3.Attachment 11. Failure to Report on the Completion of Level 1 or Level 2  
     Corrective Actions (RTCR)  
 FM-C14-T3.Attachment 12. Failure to Correct Sample Siting Plan Errors (RTCR)  
 FM-C14-T3.Attachment 13. Monitoring Failure Due to Use of Unapproved Analytical Method  
 FM-C14-T3.Attachment 14. Monitoring Failure Due to Improper Laboratory Certification  
 FM-C14-T3.Attachment 15. Minor Failure to Monitor for Disinfection Byproducts  
 FM-C14-T3.Attachment 16. Major Failure to Monitor for Disinfection Byproducts  
 FM-C14-T3.Attachment 17. Minor Source Monitoring Failure (LT2)  
 FM-C14-T3.Attachment 18. Major Source Monitoring Failure (LT2)  
 FM-C14-T3.Attachment 19. Failure to Deliver the Lead Public Education Consumer Notice (LCR)  
 FM-C14-T3.Attachment 20. Failure to Conduct and Report Follow-Up Routine Monitoring (LCR)  
 FM-C14-T3.Attachment 21. Failure to Conduct Initial Pb-Cu Tap Sampling (LCR)  
 FM-C14-T3.Attachment 22. Minor Additional Triggered Monitoring Failure (GWR)  
 FM-C14-T3.Attachment 23. Major Additional Triggered Monitoring Failure (GWR)  
 FM-C14-T3.Attachment 24. Failure to Notify State System Fails to Meet State-Specified Requirements  
     (GWR)  
 FM-C14-T3.Attachment 25. Failure to Submit the Microbial Toolbox Report  
 FM-C14-T3.Attachment 26. Failure to Submit the Bin Classification and Treatment Requirements Report LT2  
 FM-C14-T3.Attachment 27. Failure to Submit an OEL Report for TTHMs  
 FM-C14-T3.Attachment 28. Failure to Submit an OEL Report for HAA5s  
 FM-C14-T3.Attachment 29. Failure to Report an *E. coli* PMCL Violation  
 FM-C14-T3.Attachment 30. Failure to Report the Occurrence of an *E. coli*-Positive Sample Result  
 FM-C14-T3.Attachment 31. Failure to Provide an OCCT Recommendation/Study  
 FM-C14-T3.Attachment 32. Failure to Provide a Source Water Treatment (SoWT) Proposal  
 FM-C14-T3.Attachment 33. Failure to Produce a Filter Assessment  
 FM-C14-T3.Attachment 34. Failure to Post Notice on Fluoride Level > SMCL  
 FM-C14-T3.Attachment 35. Failure to Perform WQP Monitoring/Reporting  
 FM-C14-T3.Attachment 36. Failure to Perform Minor Routine Turbidity Monitoring  
 FM-C14-T3.Attachment 37. Failure to Notify Wholesaler Waterworks of a TC+ Result.  
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 FM-C14-T3.Attachment 40. Failure to Monitor for Turbidity  
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 FM-C14-T3.Attachment 42. Failure to Monitor for Radiological Contaminants  
 FM-C14-T3.Attachment 43. Failure to Monitor for Nitrite

FM-C14-T3.Attachment 44. Failure to Monitor for Nitrate  
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 FM-C14-T3.Attachment 49. Failure to Install and Operate OCCT (LCR)  
 FM-C14-T3.Attachment 50. Failure to Have Monitoring Plan (LT2)  
 FM-C14-T3.Attachment 51. Failure to Establish a Monitoring Plan for Disinfection Byproducts  
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 FM-C14-T3.Attachment 54. Failure to Deliver the CCR by July 1  
 FM-C14-T3.Attachment 55. Failure to Conduct the Pb and Cu Initial Tap Sampling (LCR)  
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 FM-C14-T3.Attachment 58. Failure to Comply with a Testing Procedure for Any Contaminant  
 FM-C14-T3.Attachment 59. Major Failure to Collect Any Source Water Monitoring Samples (LT2)  
 FM-C14-T3.Attachment 60. Minor Failure to Collect All Source Water Monitoring Samples (LT2)  
 FM-C14-T3.Attachment 61. Failure to Arrange a Comprehensive Performance Evaluation (CPE)  
 FM-C14-T3.Attachment 62. Failure of the CCR to Meet Adequacy, Availability, and Content Requirements  
 FM-C14-T3.Attachment 63. Failure to Provide Notice on the Availability of Unregulated Contaminant Monitoring Results  
 FM-C14-T3.Attachment 64. Failure to Develop Disinfection Profile or Calculate Disinfection Benchmark  
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 FM-C14-T4.Attachment 2. No Construction Permit for Modification  
 FM-C14-T4.Attachment 3. Exceeding Waterworks Permitted Design Capacity  
 FM-C14-T4.Attachment 4. Operating Facility Beyond Permit Conditions  
 FM-C14-T4.Attachment 5. New Waterworks or Components in Service without Approval  
 FM-C14-T4.Attachment 6. Lacks Properly Licensed Operator  
 FM-C14-T4.Attachment 7. No Waterworks Business Operations Plan (WBOP)  
 FM-C14-T4.Attachment 8. Failure to Establish a Cross-Connection Control Program  
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 FM-C14-T4.Attachment 10. Failure to Pay Waterworks Operations Fee  
 FM-C14-T4.Attachment 11. Failure to Report by the 10<sup>th</sup> Day of Month  
 FM-C14-T4.Attachment 12. Failure to Perform the Responsibilities of the Waterworks Owner  
 FM-C14-T4.Attachment 13. Lack of Monitoring Equipment  
 FM-C14-T4.Attachment 14. Failure to Meter Total Water Production - CWS Waterworks  
 FM-C14-T4.Attachment 15. Failure to Meter Total Water Production - NTNC Waterworks  
 FM-C14-T4.Attachment 16. Failure to Meter Total Water Production - TNC Waterworks  
 FM-C14-T4.Attachment 17. Less Than 20 psig at Service Connection  
 FM-C14-T5.Attachment 1. Confirmed Microbial Contamination  
 FM-C14-T5.Attachment 2. Elevated Turbidities at Filters  
 FM-C14-T5.Attachment 3. Zero or Negative System Pressure at Waterworks  
 FM-C14-T5.Attachment 4. Low System Pressure at Waterworks  
 FM-C14-T5.Attachment 5. Major Water Main Breaks or Service Interruptions  
 FM-C14-T5.Attachment 6. Flooding of Wells  
 FM-C14-T5.Attachment 7. Groundwater Source Determined to be GUDI  
 FM-C14-T5.Attachment 8. GUDI Source Requiring At Least a 4-Log Inactivation of Viruses  
 FM-C14-T5.Attachment 9. Known Harmful Chemical Substance(s) Suspected in Drinking Water

FM-C14-T5.Attachment 10. Unknown Substance(s) Suspected in the Drinking Water  
FM-C14-T5.Attachment 11. Rescission of an Emergency Notice – Drinking Water Problem  
Corrected

## **Chapter 15 - Data Entry and SDWIS Basics**

### **Background**

Data management plays a critical role in helping states and the U.S. Environmental Protection Agency (EPA) to make appropriate decisions regarding protecting public health. The term "states" refers to any entity with primacy (e.g., Virginia) under the Safe Drinking Water Act (SDWA) authorized to implement and enforce national primary drinking water regulations (NPDWRs). States supervise and regulate the public water systems within their jurisdictions to ensure that each system meets any state-specified and EPA standards in the production safe drinking water. The SDWA requires states to report rule compliance status of waterworks and any other drinking water information periodically to EPA through a uniquely specialized system called the Safe Drinking Water Information System (SDWIS) system, which essentially facilitates the EPA-State information-sharing relationship. (This relationship may be expanded in the future to allow more efficient downloading/uploading of data (e.g., analytical results by laboratories) and enhanced transparency by allowing access to the public on limited SDWIS data.)

A federal database (SDWIS Fed) maintains the information in a data warehouse once it is received from the state. This enables the execution of the oversight responsibility of the EPA mandated under the SDWA. For this inter-relationship to function efficiently, all data entry must be accurate and timely, which requires that staff have a sound working knowledge of the capabilities of the SDWIS.

### **1. Data Entry**

Each EPA rule specifies the mandatory reporting requirements that may vary from sample collection to compliance determination and subsequent enforcement actions. It is therefore incumbent on the Office of Drinking Water (ODW) staff to address and ensure all data-entry tasks to be accurate and timely so that the appropriate decision-making can be made pursuant to Virginia's primacy obligations.

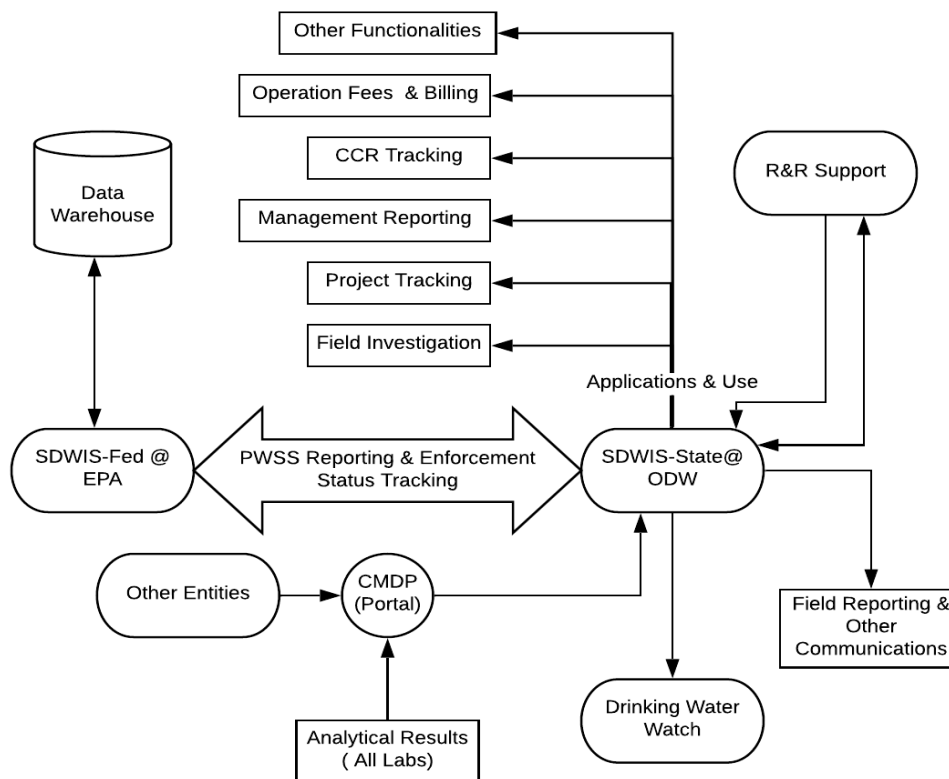
The areas to which data entry apply involve all of the requirements specified in all the EPA rules and the Virginia *Waterworks Regulations*. The ultimate objective of data entry is to facilitate ODW staff to evaluate the compliance status for each waterworks and ensure protection of public health.

### **2. Compliance Monitoring Data Portal (CMDP)**

This data portal enables drinking water utilities and laboratories to report data electronically to primacy agencies with fewer errors and in a more efficient manner. The CMDP is a web-based portal that allows the user to electronically submit water sample results to ODW by (i) manually entering data for electronic submission, (ii) Excel file upload, or (iii) machine-to-machine communication. The portal increases data accuracy and completeness and will decrease the overall reporting burden for primacy agencies.

The CMDP complies with EPA's Cross-Media Electronic Reporting Rule (CROMERR), which ensures timely and accurate data reporting for compliance determinations pursuant to the

SDWA. CMDP checks data quality, reduces data-entry errors, ensures accurate and timely transfer of sampling data, and reduces time to update missing or invalid data. Laboratories must configure their Laboratory Information Management System (LIMS) to transfer data to CMDP. (See flow chart outlining the basic database management and inter-relationships within SDWA implementation.)



**Legend/Notes:**  
 CMDP=Compliance Data Monitoring Portal; SDWIS=Safe Drinking Water Information; EPA=Environmental Protection Agency; ODW=Office of Drinking Water; R&R=Reports & Retrieval (Access Database); CCR=Consumer Confidence Report. This reporting system is subject to upgrades with the expectation that the system will evolve and be more efficient and transparent.

*Flow Chart. Database Management and Inter-Relationships within SDWA Implementation.*

Primacy agencies can use the portal-reported data to make more informed decisions about waterworks compliance and focus their limited resources on preventing and responding to public health problems. The portal does not require new reporting. Primacy agencies, waterworks, and laboratories will continue to report data to EPA or the state based on the content and schedule outlined in the current regulations.

### **3. SDWIS Fed Data Warehouse**

All states with primacy must report the following information to EPA. Thus, states and EPA must warehouse a vast amount of data to allow EPA in its oversight responsibilities to evaluate



rule compliance and the appropriateness of enforcement actions at both the state primacy and national levels. This data includes the following:

- Basic information about each waterworks, including but not limited to:
  - the system's name
  - ID number
  - city or county served
  - number of people served
  - type of system (community, transient noncommunity, nontransient noncommunity)
  - whether the system operates year-round or seasonally
  - characteristics of the system's source(s) of water
  - legal entities/contacts
- Violation information for each waterworks, including whether the system has:
  - failed to follow established monitoring and reporting schedules
  - failed to comply with mandated treatment techniques
  - violated any Primary Maximum Contaminant Levels (PMCLs)
  - failed to communicate required information to their customers
- Enforcement information, including actions states or EPA have taken to ensure that a waterworks returns to compliance if it is in violation of an NPDWR.

The SDWIS warehouse contains information about waterworks and their violations of EPA's drinking water regulations, as reported to EPA by the states. These regulations establish maximum contaminant levels (MCLs), treatment techniques (TTs), and monitoring and reporting requirements to ensure that the waterworks stay on track in providing safe drinking water to their customers. States use a scoring system and an Enforcement Tracking Tool (ETT) to evaluate compliance activities. (For further discussion, see *Enforcement Manual*).

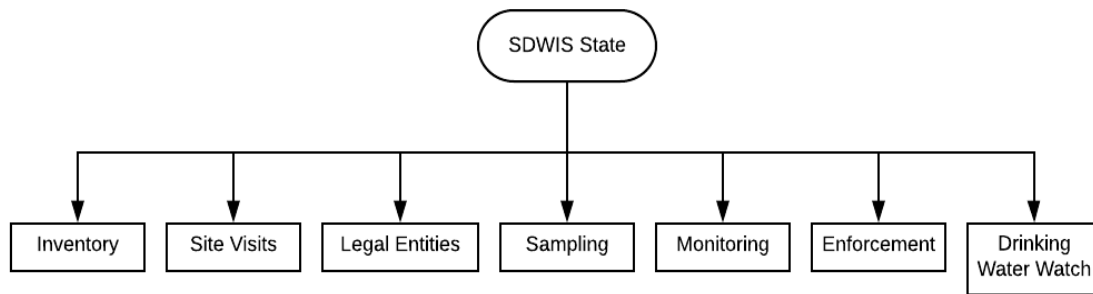
SDWIS Fed is EPA's national database that manages and collects waterworks information from the states, including reports of drinking water standard violations, reporting and monitoring violations, and other basic information, such as waterworks location, type, and population served.

#### **4. EPA Safe Drinking Water Information System (SDWIS) Data**

EPA's SDWIS databases store information about drinking water. There are two versions of SDWIS. The federal version (SDWIS Fed) stores the information EPA needs to monitor approximately 156,000 public water systems. The other version is SDWIS State, which is managed by the ODW. Typical information in the dataset is as noted in Section 3.

#### **5. SDWIS Basics**

SDWIS Web is a web browser-based database consisting of various modules as outlined in the following schematic:



These modules<sup>j</sup> are accessed within the same browser, therefore all changes must be saved before opening a second module. (In the future, the entire SDWIS may evolve into a centralized, cloud-based system.)

In the current situation, all references to File Menus, Edit Menus, etc. pertain to menus found within the browser window, not the browser menus themselves. Also, many screens require you to scroll down the page to see additional fields. SDWIS is supported by R&R (a Reports & Retrieval access database), which is scheduled to be decommissioned by the end of 2022. Field staff can still have access to the most recent data in R&R. The Central Office data management staff exercises oversight on the functionalities of both SDWIS and R&R.

### 5.1. Do's and Don'ts

SDWIS Web is a web browser-based database (be sure to set the browser “Popup Blocker” to off). The modules are accessed within the same browser, therefore be certain to save all changes prior to opening a second module. **DO NOT USE THE MOUSE WHEEL TO SCROLL.** The following are some typical “do’s” and “don’ts”, but not an all-inclusive list. For a more comprehensive discussion, refer to the *Data Management Manual*.

- If a field with a drop down box is highlighted, use of the mouse wheel could change the contents of the field without the user knowing.
- After successful login, all modules are listed in the left pane.
- All “+” and “\*” symbols in the right pane are mandatory, and are associated with the blue prompt fields.
- “+” means this is an EPA core data element for federal reporting, i.e., federal mandatory field
- “\*” means this is a SDWIS Web mandatory field, i.e., for SDWIS Web to properly function, to save/update, click the “OK” button on the module's main screen.
- To navigate through data-entry screens, use the SDWIS Web buttons (right pane).
- Do not use browser buttons; e.g., do not use the BACK button or FORWARD button or CHOOSE FROM FAVORITES LIST. This will result in loss of all data changes with no recovery. All data changes must be saved using the OK button to update the database.

<sup>j</sup> The “Drinking Water Watch” module may be replaced by “Drinking Water Viewer” as an especially useful tool for waterworks owners, laboratories, and the general public to access information about waterworks.

- Do not use the web browser menus.

## **5.2. Role of the Compliance Specialist**

At each field office, the Compliance Specialist will be the “go to person” for guidance on compliance activities generally. Any contact with the central office on any enforcement issue will be coordinated through the Compliance Specialist. On a routine basis, the Compliance Specialist will use SDWIS-generated reports to track compliance and advise staff when there are unresolved or questionable matters pertaining to any waterworks. At each field office, Compliance Specialists will routinely determine potential violations by running compliance reports in SDWIS at least monthly, in conjunction/collaboration with the SDWIS Administrator and other Data Management Staff. In general, field staff should engage the Compliance Specialist into the process of addressing violations or potential problem systems as early as possible. Validated “potential violations” are then processed as “alleged” violations, leading to the issuance of NOAVs. For further discussion, refer to the *Enforcement Manual* and the *Data Management Manual*. Details on these duties are described in the SDWIS compliance determination SOPs.

## **6. SDWIS Configuration**

SDWIS is composed of seven modules (see above schematic). ODW staff is required to populate the modules with information from each waterworks. The actual information required will depend on the type, size and complexity of the waterworks.

This chapter provides an overview on how ODW staff manage data, and with some accessibility to the waterworks owner. The current module “Drinking Water Watch” (DWW) or a subsequent version, such as Drinking Water Viewer, can be an especially useful tool for waterworks owners, laboratories, and the general public to access information about waterworks.

For a more comprehensive “step-by-step” engagement and understanding on the mechanics of SDWIS, refer to the *Data Management Manual*.

### **6.1. Inventory**

This module represents the inventory of the complete listing and accounting of all public waterworks, including active, inactive, and proposed. It consists of the waterworks demographic information and water system infrastructure data. The following data-entry activities are typically associated with this module:

- Waterworks classification
  - Modifying a waterworks
  - Adding a new waterworks
- Population served
- Service connections
- Related points of contact
- Water system facilities
  - Basic information

- Deleting a facility
- Adding a facility
- Locational information
- Well facility
- Treatment plant facility
  - Modify treatment objective
  - Add a treatment objective
  - Microbial removal
  - Storage (chemicals) facility
- Consecutive connection facility
- Flow path for waterworks
- Regulating agency
- Geographic area
- Service area
- Sampling point
- Water purchases (Wholesaler-consecutive relationship)

## **6.2. Site Visits**

This module records relevant details associated with site visits and sanitary surveys of a waterworks. Field office staff must document each site visit and sanitary survey, especially including the eight essential elements of a sanitary survey, and assessments. All waterworks inspections require a record in SDWIS. When visits serve multiple purposes, ODW staff must enter a site visit record for each purpose/reason. When performing inspections using GEC SWIFT Surveys, this data is automatically updated (see Section 9). Furthermore, ODW staff must track significant deficiencies using a compliance schedule and confirm their resolution with an associated site visit. See Chapters 1 and 7 of this manual for details on responding to significant deficiencies.

## **6.3. Legal Entities**

A legal entity has legal rights and obligations with respect to the waterworks, including consulting engineers who are identified in SWEPT; see Section 9.1 in this chapter. This module identifies the legal entities, such as the individuals, consultants, corporations, or government agencies that are associated with and responsible for a waterworks. ODW staff must first enter the name, address, phone number and if applicable, the certified operator's license number of a legal entity in order to link this information to other areas of SDWIS (i.e., as point of contact, etc.).

## **6.4. Sampling**

This module identifies the actions undertaken by the waterworks in collecting a specific and fully attributed water sample for analysis, and for the purposes of characterizing the water quality. A fully attributed sample is one that identifies all the parameters associated with the sample, such as name of collector, time collected, date collected, sampling point, sample ID number, etc.)

Most EPA rules require sample collection, except the Public Notification (PN) Rule and the Consumer Confidence Report (CCR) Rule that typically require ODW staff to enter completion dates of specific tasks. This module records the sample results and any other data (e.g., a date or a qualitative response) for the following EPA rules as they apply to an individual, specific waterworks type:

- RTCR (Revised Total Coliform Rule);
- GWR (Ground Water Rule);
- D/DBPR (Disinfectants and Disinfection Byproducts Rule);
- SWTR (Surface Water Treatment Rule);
- IESWTR (Interim Enhanced Surface Water Treatment Rule);
- LT2ESWTR (Long-Term 2 Enhanced Surface Water Treatment Rule);
- CCR (Consumer Confidence Report Rule);
- PN (Public Notification) Rule;
- LCR (Lead and Copper Rule);
- Radionuclide Rule; and
- Phase I/II/V (Chemicals) Rule.

Comprehensive information and guidance on sampling can be found in the *Sampling Manual*.

## **6.5. Monitoring**

This module identifies the systematic process of collecting, analyzing, and using information to observe and track the progress or quality of an activity toward reaching its objectives over a period of time and to guide decision-making. The Compliance Specialist will assist other field staff on matters pertaining to waterworks enforcement status through compliance reports generated from SDWIS. The data-entry requirements in this module are very extensive due to the requirements of the various EPA rules. This module tracks the sampling schedules and provides violation and milestone data, including waivers.

## **6.6. Enforcement**

ODW staff uses this module to add, delete, and modify enforcement actions associated with violations. At the field office level, staff can issue notices of alleged violations (i.e., Tier 1 – Tier 3). For additional enforcement actions of a “heightened” level, staff will liaise with the Central Office Director of Compliance and Enforcement through the Compliance Specialist.

## **7. Metadata**

SDWIS uses metadata to provide the broad capabilities of the various modules. In general, metadata refers to a set of data that describes and gives information about other data. It is therefore “data about data” on which the SDWIS is based. Metadata describes how and when and by whom a particular set of data was collected, and how the data is formatted. Metadata is essential for understanding information stored in data warehouses and has become increasingly important in XML-based Web applications. Many distinct types of metadata exist, including descriptive metadata, structural metadata, administrative metadata, reference metadata, and

statistical metadata. It allows the user to perform searches among the data. Search engines generally use the metadata, along with a combination of other factors, to determine what is on a Web page and how relevant that content is to a given search. Typically, field staff will not be involved with metadata.

## **8. Cloud Storage**

In the future, SDWIS and other applications will evolve and will use the “Cloud” storage for its data. This is defined as "*the storage of data online in the cloud,*" wherein a company's data is stored in and accessible from multiple distributed and connected resources that comprise a cloud. The informational-sharing relationship between EPA and the State will essentially remain the same.

Cloud storage can provide the benefits of greater accessibility and reliability; rapid deployment; strong protection for data backup, archival and disaster recovery purposes; and lower overall storage costs as a result of not having to purchase, manage, and maintain expensive hardware. There are many benefits to using cloud storage; however, cloud storage does have the potential for security and compliance concerns that are not associated with traditional storage systems. Typically, field staff will not be involved with issues of cloud storage.

## **9. GEC Software**

ODW has implemented four GEC (Global Environmental Consulting) software modules to replace the functionality of former MS Access databases and SDWIS (Safe Drinking Water Information System) to provide additional functionality. ODW may implement other GEC software modules in the future to improve our efficiency or the services that we provide as funding allows. These four GEC software modules include:

### **9.1. SWEPT**

Safe Water Engineering Project Tool. This application administers and manages public drinking water engineering projects. Staff training on this module is recorded and available in TRAIN.

### **9.2. SWIFT**

Safe Water Information Field Tool. This application enables field staff to quickly and efficiently evaluate the present conditions observed during a sanitary survey or site visit at a public water system. Staff training on this module is recorded and available in TRAIN.

### **9.3. SWIMR**

Safe Water Information Management and Reporting. This application integrates data from multiple databases and compiles the information into valuable reports that convey critical information for primacy agencies (such as VDH, ODW), water systems, and the public.

#### **9.4. Drinking Water Watch (DWW)**

This module is an application that lets any user (such as a waterworks owner or a Virginia consumer) view certain data in the SDWIS State database. This feature promotes transparency between the regulator and the regulated community. This module allows basic water system searches and reporting, and may evolve into a more user-friendly future application. The DWW provides a real-time view of the following:

- Points of Contact (limited to ODW staff);
- Annual Operating Periods;
- Population Served;
- Service Connections;
- Source of Water;
- Service Area;
- Water Purchases (if applicable);
- List of Facilities and their details;
- Total Coliform Rule (TCR) Sample Schedule;
- Chemical Sampling Schedules;
- Total Coliform Rule Results and Summaries;
- Chemical Results;
- Lead and Copper Summaries;
- Violation/Enforcement Actions and their details; and
- Site Visits and Milestones.

The DWW is accessed through the ODW website (<http://www.vdh.virginia.gov/drinking-water>) and allows ODW staff and outside entities read-only access to SDWIS data. Contact and sample site data are only available with a “sign in” to protect personally identifying information, and the posting of results to the public view of DWW is delayed 30 days to allow waterworks an opportunity to notify ODW of erroneous data. This module is for viewing purposes only and does not contribute to any data generation.

# Chapter 16 – Hauling Water

## Summary

The waterworks owner is responsible for contacting the VDH-ODW field office that will ensure that the water hauled to the waterworks is from an approved public water supply to protect public health. Delivery of water in this manner is intended only to be a temporary solution to an unexpected problem. If the waterworks relies on hauled water to maintain an adequate supply, new sources of water must be developed as soon as possible.

The flow chart outlines the inter-relationship between water hauling and waterworks operations and the decision-making pathways to resolve the issue when water demand exceeds the water supply. The hauling tank must be acceptable for hauling potable water. That is, it must be food-grade, a stainless steel tank, NSF-pw certified, or otherwise approved by the commissioner.

## 1. Criteria for Water Hauling

Any waterworks having to use water haulers of potable water on a temporary basis must ensure that they are commercially acceptable, as well as comply with the following:

### **1.1. Waterworks Notification**

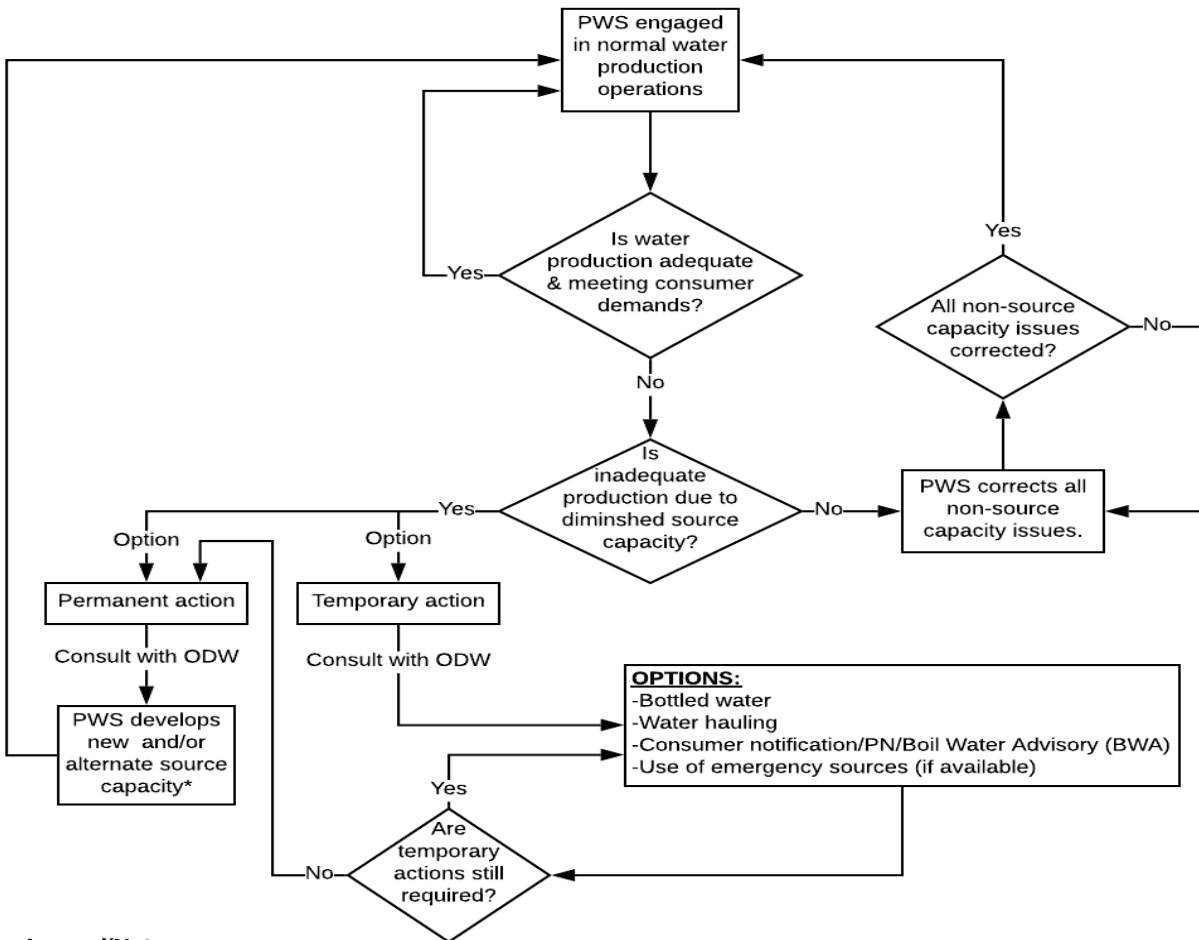
Waterworks proposing to haul potable water must contact the VDH-ODW field office before any water is hauled so that the source of water and method of hauling can be discussed and confirmed as acceptable. The water must come from an approved public water supply (i.e., a waterworks) that meets all applicable drinking water quality standards, including a good bacteriological history. The tanker truck must be one that is used exclusively for hauling of potable water. The water should be drawn from a location approved by the supplying waterworks, e.g., at the treatment plant or approved truck filling location, and should not be drawn from fire hydrants or dead-end lines.

### **1.2. Customer Notification**

The waterworks must notify its customers of the water shortage and the temporary use of water hauling. Customers should be encouraged to conserve water. In addition, they should be advised of the following:

- Higher than normal levels of chlorine in the water (if applicable);
- Persons with sensitive skin should take the necessary precautions;
- All instructions in the Boil Water Advisory (if applicable) should be observed; and
- Customers should mitigate possible harm to fish in aquariums.





**Legend/Notes:**

PWS=Public water supply; PN=Public notice; ODW=Office of Drinking Water, BWA=Boil Water Advisory.

\* Alternate source capacity includes consecutive connections and waterworks consolidation with other waterworks.

*Flow Chart. Inter-Relationship of Water Hauling with Waterworks Operations.*

### 1.3. Peripheral Equipment

All peripheral equipment to the tanker truck must be maintained in good condition and not leaking, including the connection apparatus, such as caps, hoses, valves, couplings, and fittings. Pumps, hoses, and couplings/fittings used to transfer potable water to and from the tank must be suitable for potable water use, used exclusively for potable water, and be properly cleaned and disinfected before use. Garden hoses are not approved; however, RV/marine type flexible hose is suitable for potable water. Water hoses must be rubber or plastic (if plastic, it must bear the NSF pw seal) and must be protected on the open end(s) with cap(s). Hoses should not be left on the ground, and connections should be covered/capped to exclude animals, insects, and any other contamination. All pumps and piping used to transfer water to and from the hauling tank must be certified NSF-pw and used exclusively for potable water.

#### **1.4. Disinfection Requirements**

Water delivered by tanker trucks must be disinfected with regular unscented bleach and mixed thoroughly to achieve at least a 2.0 mg/l free chlorine residual. Use liquid unscented bleach meeting American National Standards Institute/NSF International (ANSI/NSF/CAN) Standard 60 for drinking water treatment chemicals. The chlorine residual must be measured and recorded before delivery, and the free chlorine residual must be at least 2.0 mg/L at the time of delivery.

#### **1.5. Water Tankers**

The tanker used to haul water must have documentation on its prior use and reconditioning, and must be clearly marked "Drinking Water Only", and made available to the Field Office for quick verification. Only tankers proven/validated as ready for drinking water hauling are allowed to be used. Tankers must be cleaned out according to the product manufacturer's instructions before disinfection and water filling. All equipment surfaces intended for potable water contact must be washed, rinsed, sanitized, inspected, and replaced as often as is necessary to minimize the risk to public health. Tanker trucks must be clean and disinfected for use in transporting potable water. The tank material must be suitable for contact with potable water. Tanks must be provided with a protected vent to prevent negative pressure backflow. The tank must contain a manhole large enough to allow it to be cleaned and inspected. The inside of the tank must be smooth and free of corrosion. Interior coatings must be suitable for contact with drinking water and meet ANSI/NSF/CAN Standard 61. The tank must be protected from contamination at all times: no openings should be exposed allowing contamination into the tank. Before the first use, the tanker must be disinfected in accordance with Section 1.6.

#### **1.6. Disinfection of Water Tankers**

Before the first use of a receiving storage tank for hauling water, the waterworks must disinfect and then test it for presence/absence (P/A) of coliform via two P/A samples collected at least 16 hours apart. Upon two consecutive negative P/A samples, the tank may be used. If there is not time to wait for these results, then the waterworks must implement interim substitute measures approved by the ODW Field Office, for example, distributing a boil water advisory until receipt of two consecutive satisfactory P/A sample results.

Disinfection of the tanks, hoses, and other equipment shall be accomplished before the first use of the tanker, in the following manner:

- Fill the tanker with clean potable water from a waterworks regulated by the Virginia Department of Health, Office of Drinking Water.
- Disinfect using regular unscented bleach meeting ANSI/NSF/CAN Standard 60 to make 100 ppm chlorine solution or 50 ppm chlorine solution and mix well.
- Run water out of tanker discharge line(s) until the smell of chlorine is detected in the water.
- Shut off discharge lines. Let the chlorine solution sit in the tanker for at least 8 hours if using 100 ppm chlorine solution or at least 24 hours if using 50 ppm chlorine solution.

- Drain the chlorine solution from the tanker. (De-chlorinate the discharged water. Caution: high concentration of chlorine is toxic to aquatic life.)
- Post a placard clearly marked “Drinking Water Only” on the tanker as long as water hauling is being done.

### **1.7. Disinfection Requirements at the Receiving Storage Tanks (if used)**

VDH must pre-approve these tanks before use and must ensure they meet the requirements of the *Waterworks Regulations* for storage and disinfection. Tanks must be protected from contamination at all times. No openings should be exposed allowing contamination into the tank. The following additional requirements must be met if the hauled water is being unloaded to temporary, approved storage tanks:

- A residual chlorine level of between 1 and 4 ppm must be maintained in the temporary tanks. The operator should check the chlorine residual at an approved location inside the building rather than directly from the temporary tank, if the water is pumped into the building from the temporary tank.
- The waterworks must disinfect the receiving storage tank in accordance with Section 1.6 of this policy.

### **2. Testing**

The frequency of routine bacteriological sampling should be doubled. For example, if one distribution sample is normally collected monthly, two should be collected monthly until one month after water hauling has been discontinued.

### **3. Records and Reporting**

The amount of water hauled and the delivery dates should be included on the monthly/quarterly operation reports as stipulated by the ODW Field Office. The chlorine residual shall be checked and recorded before delivery. A detailed log must be kept for one year after delivery, and must contain:

- The amount of water hauled and tank size;
- Source of the hauled water (name of waterworks) and its point of withdrawal;
- Dates and times of pick-up and delivery;
- Amount of chlorine added to the tank;
- Free chlorine residual in the tank (i.e., the chlorine residual resulting just after filling the tank and adding unscented bleach);
- Point of delivery and chlorine residual at time of delivery; and
- Driver's name (or other person responsible for the tanker).

All records must be reported to the field office on the monthly operation reports or in a separate report after the hauling was discontinued as required by the field office.

**FM-C1-Attachment 1.** Letter Indicating Significant Deficiencies & CAP Requirements.

**INSTRUCTIONS:** Complete/select items shown in *italics* and underlined and convert to regular font. Staff may apply minor editorial judgment for situational correctness. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

**NOTICE OF SIGNIFICANT DEFICIENCY/DEFICIENCIES**

SUBJECT: County/City  
WATERWORKS: Waterworks Name  
PWSID: PWSID

Date

Waterworks Owner

Address

City, State, Zip

Dear Waterworks Owner:

The attached sanitary survey report indicates significant deficiencies identified during the inspection of the subject waterworks.

(If ODW issues CAP):

Enclosed is a proposed Corrective Action Plan (CAP) for your review; please sign and return if acceptable. If you wish to make changes to the CAP, please contact this office immediately. The final, signed CAP must be submitted to this office by (date of letter plus 45 days) for review and approval. You are required to notify this office within 30 days of completion of each action item. The CAP must be fully implemented within 120 calendar days from the date of this letter. Once all of the actions listed in the CAP are completed, this office will conduct a follow-up inspection to verify elimination of the Significant (Deficiency or Deficiencies) in accordance with the CAP.

(If waterworks owner generates CAP):

You are required to contact this office by (date of letter plus 30 days) to establish how and on what schedule the Significant (Deficiency or Deficiencies) will be addressed. A written Corrective Action Plan (CAP) must be submitted to this office by (15 days later), for review and approval. The CAP must outline the steps necessary to correct the Significant (Deficiency or Deficiencies), and be fully implemented within 120 calendar days from the date of this letter.

You are required to notify this office within 30 days of completion of each action item. Once the actions listed in the CAP are completed, this office will conduct a follow-up inspection to verify elimination of the Significant (Deficiency or Deficiencies) in accordance with the CAP.

Your failure to respond as requested by the above deadlines may force VDH to pursue enforcement action in order to protect public health.

**FM-C1-Attachment 1. Letter Indicating Significant Deficiencies & CAP Requirements.**

Sincerely,

Name & Title  
Field office name

ABC:xyz

cc: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director.  
Administrator/Manager, name of County, County

**FM-C1-Attachment 1. Letter Indicating Significant Deficiencies & CAP Requirements.**

**CORRECTIVE ACTION PLAN**

*Waterworks Name*

PWSID #####

The following (interim and) corrective actions must be implemented by the (*Name of waterworks owner*) because the (*Name of waterworks*) waterworks has been found to have the following significant deficiency(ies):

*Itemize deficiencies here.....*

**A. INTERIM ACTION REQUIREMENTS [if applicable]**

*Include interim action requirements as necessary*

**B. CORRECTIVE ACTION REQUIREMENTS**

The following corrective actions and schedules will be followed by the (*Name of waterworks*). As each action item is completed, the status will be reported in writing to the VDH-ODW.

ACTION ITEMS	START DATE	COMPLETION DATE
Include corrective action item(s) necessary to correct the significant deficiency	Immediately	Target 120 days from CAP issuance

(I,)(*Name of waterworks owner entity*) agree(s) to fully implement the above (interim and) corrective actions to bring (my)(*name of waterworks*) waterworks into compliance with the Commonwealth of Virginia *Waterworks Regulations*.

---

Waterworks Owner/Agent

Date

**FM-C1-Attachment 2.** All GW or ALL Consecutive System Owners - No-Report Letter.  
**INSTRUCTIONS:** Complete/select items shown in *italics* and underlined, and convert to regular font. Staff may apply minor editorial judgment for situational correctness. Print on VDH letterhead. Pages are 1" top, bottom, and side margins.

(Groundwater)(Consecutive) System Sanitary Survey Report

Date

To: Owner Name  
Waterworks Name  
Address  
City, State, Zip Code

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID: PWSID

Survey Date:

Present at Survey:

Next Survey Scheduled For:

Future Sampling Requirements: See attached (or insert table here)

As a result of the sanitary survey noted above, the Department offers the following comments: Should you have questions or desire to discuss our findings or desire a copy of the inspector's field evaluation notes, please contact us at (phone number).

Comments (enumerate as needed if more than one comment)

Please visit our web site at <http://www.vdh.virginia.gov/ODW/>. There you will find helpful information on water sampling and testing, operator licensing and training, consumer education, project funding and **many other topics, as well as, links to other key websites and Virginia's Waterworks Regulations.**

If you have any questions or concerns regarding this matter, please contact me at (phone number) or email at (email address).

Survey By:

Name & Title  
Field office name

ABC:xyz

Enclosure(s): Future Sampling Requirements List (Add other relevant information, if applicable)

cc: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director. w

**FM-C1-Attachment 3. GW System (CWS & NTNC) Sanitary Survey Reports-Parts I & II.**

**VIRGINIA DEPARTMENT OF HEALTH  
OFFICE OF DRINKING WATER  
GROUNDWATER SYSTEM SANITARY SURVEY REPORT**

SUBJECT:  
WATERWORKS:  
PWSID:

**PART I - SYSTEM BACKGROUND**  
**GENERAL INFORMATION**

Owner Name:	Waterworks Class:
Type of Waterworks:	
Contact Name:	
Contact Address:	
Contact Phone Number:	

D.O. License Class:	D.O. Has Required License:
D.O. Legal Name:	License No./Exp. Date:

Inspection By:	Inspection Date:
Time Spent:	Last Inspection Date:
Date to Reviewer:	Reviewed by/Date:
Date to Reviewer:	Reviewed by/Date:
Inspection Type:	
Present at Inspection:	
Facilities Inspected:	

Operation Permit Effective Date:	Waterworks Description Sheet Date:
Permit Up-to-Date?	Description Sheet Up-to-Date?
No. Connections:	Population Served:
Avg. Daily Production:	Operation Permit Capacity:
Exceeds 80% Operation Permit Capacity? (max. 3 consecutive months): If yes, explain:	
Treatment Provided:	
SDWIS Inventory Information Current:	

Comments:
-----------



### COMPLIANCE HISTORY

Shaded Boxes	Indicate a potential Significant Deficiency	
<b>REVISED TOTAL COLIFORM &amp; GROUNDWATER RULES</b>		
• BSSP Approved?	(Yes/No)	(Date)
• # of routine samples/monitoring period & frequency		
• Is plan current & appropriate for distribution system & population?		
• Is monitoring frequency correct?		
• Rotates and uses approved sites?		
• Measures chlorine residual for all samples, if chlorine is added?		
• RTCR Level 1 or 2 Assessments since last Survey?		
• Disinfection required? (adequate contact time)		
<i>Source # / Name (if multiple sources, list)</i>		
• 4-Log virus inactivation required?		
<i>Source # / Name (if multiple sources, list)</i>		
• 4-Log virus inactivation provided?		
<i>Source # / Name (if multiple sources, list)</i>		
• On-line chlorine analyzers required for chlorine residual?		
<b>ROUTINE RAW WATER BACTERIOLOGICAL MONITORING (<i>checked over past 12 months</i>)</b>		
• Required?		
○ If “Yes”, Frequency:		
• # of <i>E. coli</i> positive Samples		
• # Samples with Total Coliform >50 CFU/100 mL		
<b>GUDI DETERMINATION</b>	<b>RESULT</b>	<b>DATE</b>
• <i>Source # / Name</i>		
<b>SOURCE WATER ASSESSMENT PERFORMED</b>		
• <i>Source # / Name</i>		
<b>SOURCE WATER PROTECTION</b>		
• Written source water protection plan?		
<b>DDBP RULES - (Community &amp; NTNC, Disinfectant Used)</b>		
• Monitoring Plan approved and current?		
• Monitoring frequency required:		
• Operational Evaluation Level exceeded?		
Comments:		

Y = Yes; N = No; NA = Not Applicable; N/I = Not Inspected; None = None; OK = Acceptable

<b>PHASE II/V RULE</b>		
Waivers current for <u>all</u> entry points?		
<b>CONSUMER CONFIDENCE REPORTS (Community only)</b>		
• Final report issued by deadline?		
• Certification Statement Received?		
<b>LEAD &amp; COPPER RULES (Community &amp; NTNC)</b>		
• Materials Survey/Sampling Plan Approved?	(Yes/No)	(Date)
• Water Quality Parameter (WQP) routine monitoring required? (Mandatory for > 50,000 population) ○ If yes, WQPs meet quality and frequency requirements?		
• Have Action Levels (90%) been exceeded in past? ○ If so, when?		
• Public Education requirements met if required?		
• Optimized Corrosion Control Treatment (OCCT) required? ○ If “Yes”, is Operational Control Monitoring performed and acceptable?		
• All consumer notice requirements met?		
<b>CROSS-CONNECTION CONTROL PROGRAM</b>		
• Approved?	(Yes/No)	(Date)
• Inspected Records This Visit?		
○ Program Active?		
○ Satisfactory?		
<b>(MONTHLY) OPERATION REPORTS</b>		
• All submitted for past 12 months?		
• Operational treatment parameters monitored?		
• All required data reported?		
<b>EMERGENCY MGMT. PLAN for Extended Power Outage (Community only)</b>		
• Verification received?	(Yes/No)	(Date)
• Current?		
<b>ASSET MANAGEMENT (recommendation)</b>		
• Written Plan Developed?		
• Routine Maintenance Performed?		
Comments:		

Y = Yes; N = No; NA = Not Applicable; N/I = Not Inspected; None = None; OK = Acceptable

ENFORCEMENT		DATE
• Administrative/Consent Order in Effect:		
• Violations / Enforcement Actions Since Last Survey:		
• Owner issued Public Notice as required?		
• Active Corrective Action Plan?		
○ If “Yes”, is waterworks on schedule?		
• SDWIS Violation & Enforcement Action, Public Notification data current?		
<b>COMPLAINTS SINCE LAST INSPECTION:</b>		
• If yes, summarize:		
Comments:		

Y = Yes; N = No; NA = Not Applicable; N/I = Not Inspected; None = None; OK = Acceptable

### MONITORING HISTORY

Insert R&R report - Next Chemical Sample Due. ~~See WM 851, Attachment G for instructions.~~

If field notes are sent with the owner’s report, the Next Chemical Sample Due report does not need to be included in both this section and the owner’s report.

**PART II - SYSTEM SURVEY INFORMATION (Field Notes)**

Shaded Boxes

Indicate a potential Significant Deficiency

**COMBINED SECTIONS**

- A. SOURCE - WELL
- B. WELL HOUSE
- C. STORAGE - PNEUMATIC TANK(S)
- D. CHEMICAL FEED SYSTEMS – SAFETY/GENERAL
- E. DISINFECTION
- F. NEW ACTIVITIES OR POLLUTION SOURCES
- G. STORAGE - ATMOSPHERIC TANK(S)
- H. BOOSTER PUMP STATION(S)

**INDIVIDUAL SECTIONS**

- I. SOURCE - SPRING / SPRING ENCLOSURE / PUMP FACILITIES
- J. DISTRIBUTION SYSTEM
- K. METER & VALVE VAULT(S)
- L. CONTINUOUS CHLORINE ANALYSIS
- M. ULTRAVIOLET LIGHT UNITS
- N. CORROSION CONTROL or SEQUESTRATION
- O. IRON & MANAGNESE CONTROL (KMnO<sub>4</sub> - GREENSAND FILTERS)
- P. FLUORIDATION
- Q. ION EXCHANGE
- R. REVERSE OSMOSIS

[It is not necessary to include this page in a completed Sanitary Survey Report](#)

A. SOURCE (WELL # / NAME)		C. STORAGE - PNEUMATIC TANK(S) (NAME/ LOCATION) (Tank Volume)		E. DISINFECTION	
Sanitary Casing Seal /Cap		Type: Pre-Pressurized or Hydro-Pneumatic		Disinfectant	
Elbowed Casing Vent/Screened		Drain Protected from Contamination		ANSI Certified/NSF Approved / "GRAS"	
12" Casing Extension		Pressure Gauge/Reading		Feeder Condition	
Concrete Pad (6' Square)		Pressure Operating Range		Spare Feeder/Repair Parts	
Well Lot Condition (50 ft Radius)		Sight Glass/ Level Indicator		Room Ventilation	
Protected from Flood Waters/ Runoff		Sample Tap Available		Contact Tank in service	
Discharge Check Valve		Pressurizing System		Contact Tank Condition	
Discharge Shut-Off Valve		Vacuum Relief Valve		Injection Line Condition (Scale Build-Up, etc.)	
Valved Blow-Off		Pressure Relief Valve		Solution Tank Condition	
Raw Water Sample Tap		Air Relief Valve		Solution Tank Covered	
Water Level Gauge or Transducer		Exterior Condition		Feeder Activation/Operation	
Operable Water Meter/Reading		Normal Pump Cycling		Weight (gas) or Volume/ Depth (OCI) Scale	
Permitted Capacity (gpm)		Tank Watertight, Structurally Sound		Number Full Cylinders (Gas Only)	
Pumping Rate Observed (gpm)		Flushed/Cleaned Date		Booster Pump(s)	
Pumping Average hrs/day		Dept. of Labor & Industry Exp. Date (>120 gal.)		Residual Test Equipment	
Permitted Source Capacity Exceeded?				Free Residual, mg/l	
Discharge Head Observed (psi)				Field test ≈ MOR residuals	
All Weather Access		<b>D. CHEM. FEED SYSTEMS</b> SAFETY / GENERAL		<b>F. NEW ACTIVITIES OR POLLUTION SOURCES</b> within 1000 ft radius of well that present a significant/acute health risk.	
<b>B. WELL HOUSE</b>		Do any chemical storage and handling facilities offer potential for explosions?		Activity or Pollution Source	Approx. Distance from Well
Adequate Protection		Is adequate safety equipment provided for chemical handling (i.e. rubber gloves, breathing apparatus, goggle, aprons, etc.)?			
Proper Storage Only (Non-toxic & Non-explosive)		Are Material Data Safety Sheets (MSDS) available?			
Cross-Connections Exist?		Are hazardous chemical containers labeled?			
Lighting		Is adequate chemical storage area provided?			
Heating		Are there approved backflow prevention devices installed to isolate process water from finished water?			
Electrical Wiring (Safety)		Does the waterworks have adequate employee safety			
Floor Drain					
All-Weather Access					
Wellhead Accessible					
Locked					
Clean/Uncluttered					
Emergency Power Available					
Comments:					

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<b>G. STORAGE - ATMOSPHERIC TANK(S)</b> (NAME/LOCATION) (Tank Volume)		<b>H. BOOSTER PUMP STATION(S)</b> (NAME/LOCATION)	
<b>WATER QUALITY PROTECTION</b>		<b>PUMP STATION LOT</b>	
Structure Watertight		Upkeep Adequate	
Vent Shielded and Screened		Surface Water Diverted Away	
Drain Satisfactory, Protected		Access Road Maintained	
Tank Overflow		<b>PUMP STATION BUILDING</b>	
• Screened		Light Operable	
• Air Gap Provided at Outlet		Ventilation Operable	
• Splash Pad/Erosion Protection		Heating Operable	
Roof Hatch Watertight		Pump Gland Piped to Drain	
Sidewall Access Watertight		Concrete Floor	
Accesses Locked/Bolted		Screened Floor Drain	
Other Tank Openings Curbed and Sleeved		Locked	
Other Tank Openings Covered		Deterioration &/or Damage Evident	
Maintenance/Repair Date		Storage of Toxic Chemicals	
Frequency/Date of Professional Tank Survey (Recommended ~5 yr)		<b>PUMP STATION OPERATIONS</b>	
Frequency/Date of Routine Tank Survey (Recommended ~1yr)		No. of Pumps in Operation	
Tank(s) Appear Structurally Sound		All Pumps Operable	
Properly Modified for Antennae?		Pump Controls:	
<b>WATER QUALITY MAINTENANCE</b>		• Automatic	
Sample Tap Available		• Manual	
Frequency Samples Collected		Pump Alternation:	
Floating Debris Observed		• Automatic	
Good Turnover Potential		• Manual	
Flushed/Cleaned Date		Flow Meter Operable	
<b>OPERATION</b>		Low Pressure Cut-off	
Tank Level Controls Operable		Alarm Operable	
Automatic or Manual		Compound Gauges Operable	
Tank Level Recorded		Cross Connections are Present	
Automatic Recorder Operable		<b>PUMP MAINTENANCE</b>	
<b>CORROSION CONTROL</b>		Pump Service Schedule	
Routine Interior Inspections Scheduled		Pump Service Recorded	
Interior Corrosion Visible		Discharge Gate Valve	
Exterior Corrosion Visible		Suction Gate Valve	
Cathodic Protection Operable		Check Valve	
<b>SAFETY</b>		Emergency Power Available	
Interior/Exterior Ladder Condition		<b>COMMENTS:</b>	
Interior/Exterior Ladder Guard			
Adequate Railing Available			
Safety Belt Available			
<b>LOT</b>			
Upkeep			
Access Road Maintained			
Surface Water Diverted			
Fence Condition Good			
Access Locked			

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<b>I. SOURCE - SPRING / SPRING ENCLOSURE / PUMP FACILITIES</b>		
	<b>SPRING # / NAME</b>	<b>SPRING # / NAME</b>
Construction Sufficient to Prevent Contamination?		
Protected From Flooding?		
Spring Overflow Screened?		
Spring Lot?		
All-Weather Access?		
No Cross-Connections?		
Clean/Uncluttered?		
Improper Storage of Contaminants?		
Spring Enclosure Condition/Acceptable?		
Spring Enclosure Protected (Lot Fenced)?		
Locked?		
Electrical Wiring (safety)?		
Lighting?		
Heating?		
Entry Point Tap Available?		
Raw Water Sampling Tap?		
Discharge Check Valve?		
Discharge Shut-Off Valve?		
Valve Discharge to Waste?		
Operable Water Meter?		
Spring Yield - gpm (if available)?		
Emergency Power available?		
Comments:		

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<b>J. DISTRIBUTION SYSTEM EVALUATION</b>	
Pipe Material(s):	
Individual Service Meters provided?	
○ If yes, routine calibration & replacement program in effect?	
Flushing Provisions (hydrants, blow-offs, etc.) available?	
Routine Flushing Program in practice?	
○ If yes, describe:	
Isolation valves exercised?	
○ If yes, describe:	
Air/vacuum relief valves checked for operability?	
○ If yes, describe:	
Pressure monitoring of distribution system?	
○ If yes, describe:	
Adequate Pressure Maintained Throughout? (>20 psi @ peak flow)	
Problems/Complaints in past year? <input type="checkbox"/> taste & odor <input type="checkbox"/> pressure <input type="checkbox"/> turbidity/sediment <input type="checkbox"/> color <input type="checkbox"/> service interruptions <input type="checkbox"/> other Describe:	
Pipe Repair - proper disinfection/sampling procedures used?	
Re-chlorination practiced? (If yes, see separate Re-Chlorination table in this report.)	
<b>FIRE PROTECTION PROVIDED?</b>	
How often are Fire Flow Tests conducted (with fire dept.)?	
How often are hydrants checked for operability?	
Are fire hydrants "NFPA-coded" to indicate maximum available fire flow?	
○ If yes, is operator familiar with fire hydrant "code"?	
Are operators familiar with tank levels necessary to provide target fire flow for target duration?	
Does waterworks have routine procedures for contacting local fire department(s) to verify available fire flow and duration?	
<b>MANAGEMENT</b>	
Plans/Sketches/Maps with valve & master meter locations?	
Records maintained (should be kept for 3 years minimum)? <input type="checkbox"/> Repairs <input type="checkbox"/> Flushing <input type="checkbox"/> Hydrant Testing <input type="checkbox"/> Fire Flow Tests <input type="checkbox"/> Water Audits <input type="checkbox"/> Complaints	
How often are Water Audits conducted?	
Leakage rates > 30%? Explain:	
Comments: (Include information on water accountability).	

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<b>K. METER AND VALVE VAULT(S)</b>	<i>NAME/LOCATION</i>	<i>NAME/LOCATION</i>
Vault Drain Functioning?		
Sample Tap?		
Access (Ladder, etc.)?		
Locked Access?		
Bypass piping?		
Pressure gauges (PRV and altitude valve)?		
Air/vacuum valve protected from contamination?		
Comments:		

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<b>L. CONTINUOUS CHLORINE ANALYSIS</b>	<i>NAME/LOCATION</i>
<b>Grab Sampling</b>	
<ul style="list-style-type: none"> <li>Are grab samples collected at least weekly for routine calibration checks for each on-line analyzer?</li> </ul>	
<ul style="list-style-type: none"> <li>Is a sample tap for grab samples located as close as feasible to where samples enter the on-line analyzer?</li> </ul>	
<ul style="list-style-type: none"> <li>What method is used to analyze grab samples?</li> </ul>	
<ul style="list-style-type: none"> <li>Is the method acceptable?</li> </ul>	
<b>Calibration</b>	
<ul style="list-style-type: none"> <li>Are results of calibration checks within the larger of +/- 0.1 mg/l or +/- 15%?</li> </ul>	
<ul style="list-style-type: none"> <li>Are emergency calibration checks performed as soon as possible when an on-line chlorine analyzer indicates a large (&lt;50%) unexpected change in chlorine residual concentration?</li> </ul>	
<ul style="list-style-type: none"> <li>Are records of calibration recorded and maintained for 3 years?</li> </ul>	
<b>On-line Analyzers</b>	
<ul style="list-style-type: none"> <li>Does each analyzer have the readout at its installation and continuous recording (hard copy chart or electronic data)?</li> </ul>	
<ul style="list-style-type: none"> <li>Is data recorded at least every 15 minutes?</li> </ul>	
<ul style="list-style-type: none"> <li>Is an alarm activated when chlorine concentration is outside normal operating range?</li> <li>If yes, what are the alarm settings? Minimum: Maximum:</li> </ul>	
Do all chemical reagents and standards for on-line analyzers and grab sample methods have an unexpired shelf life?	
Comments:	

<b>M. ULTRAVIOLET LIGHT UNITS</b>	<i>NAME/LOCATION</i>
Does the UV Unit appear to be functioning?	
Is the bulb changed according to the manufacturer's recommended schedule?	
Comments:	

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<b>N. CORROSION CONTROL or SEQUESTRATION</b>	<i>NAME/LOCATION</i>
Type Treatment (ortho/poly/blend – phosphate, pH/alkalinity adjustment, calcite contactor, silicate, etc.): & purpose?	
Back Siphonage Protection Provided?	
Safety Eyewear and Clothing Provided?	
Chemical(s) Meet ANSI / NSF Standards?	
Equipment Literature Available?	
Equipment Condition?	
Equipment Operation Adequate?	
Spare Feeder/Metering Pump?	
Proper Mixing Downstream of Chemical Addition?	
Adequate Mixing Provided for Chemical Slurries?	
Separate Feeder/Storage Room Provided?	
Suitable Chemical Storage (30 days minimum)?	
Suitable Sampling Taps (upstream, downstream)?	
Calcite Addition Based Upon (calcite contactor)?	
Disposal of Backwash Waste (downflow calcite contactor)?	
Appropriate & Operable Testing Equipment?	
Comments:	

Y = Yes; N = No; NA = Not Applicable; N/I = Not Inspected; None = None; OK = Acceptable

<b>O. IRON &amp; MANGANESE CONTROL (KMnO<sub>4</sub> – GREENSAND FILTER, OTHER-specify)</b>	<b><i>NAME/LOCATION</i></b>
Cross-Connection Protection – KMnO <sub>4</sub> Mixing Tank?	
Safety Eyewear and Clothing Provided?	
Chemicals meet ANSI / NSF Standards?	
Equipment Literature Available?	
Equipment Condition?	
Equipment Operation Adequate?	
Continuous or Batch KMnO <sub>4</sub> Addition?	
Spare Metering Pump Provided?	
pH Adjustment?	
KMnO <sub>4</sub> Addition Follows pH Adjustment?	
Supplemental Oxidants (aeration, chlorine, other)?	
If Aeration, How Provided?	
Is Disinfection Provided?	
Suitable Sampling Taps (prior to KMnO <sub>4</sub> , influent, effluent)?	
Suitable KMnO <sub>4</sub> Storage (30 days minimum)?	
Is KMnO <sub>4</sub> stored away from organic materials (explosion hazard)?	
Backwash (gravity from system/storage, pumped, other)?	
No. Backwash Pumps?	
Air Wash Provided?	
Disposal of Backwash Waste?	
Appropriate & Operable Testing Equipment?	
Comments:	

Y = Yes; N = No; NA = Not Applicable; N/I = Not Inspected; None = None; OK = Acceptable

<b>P. FLUORIDATION<sup>1</sup></b>				
<b>Month</b>	<b>Split Sample Results</b>			
	<b>Dose Range (mg/L)</b>	<b>Waterworks</b>	<b>Other</b>	<b>Acceptable<sup>2</sup>?</b>
January				
February				
March				
April				
May				
June				
July				
August				
September				
October				
November				
December				

<b>P. FLUORIDE ACID</b>	<b>NAME/LOCATION</b>
Anti-siphon protection?	
Long gloves, apron, boots & goggles/face shield?	
Room ventilation?	
Carboy vented to outdoors?	
Carboy openings sealed?	
Separate feeder/storage room?	
Chemicals meet NSF standards?	
Feeder condition?	
Injection line condition?	
Weighing scale/recorder?	
Feeder activation/operation?	
Back pressure sustaining valve?	
Fluoride Ion Test Equipment?	
Fluoride Ion Concentration?	
Comments:	

Y = Yes; N = No; NA = Not Applicable; N/I = Not Inspected; None = None; OK = Acceptable

<sup>1</sup> Review monthly operation reports and fluoride split sample reports for the past 12 months.

<sup>2</sup> Within 10% (specific ion electrode) or ± 0.2 (SPADNS)

<b>P. FLUORIDE SATURATOR</b>	<b><i>NAME/LOCATION</i></b>
Anti-Siphon vacuum breaker on make-up water line (upflow saturator)?	
Air gap on make-up water line (downflow saturator)?	
Particulate respirator, gloves, goggles, coveralls?	
Chemicals meets ANSI / NSF standards	
Operational water meter on make-up water line (between softener and saturator, if applicable)?	
Water meter read and volume recorded daily?	
Softener Provided?	
Upflow Saturator Pick-up Float Assembly?	
Frequency of softener regeneration/replacement?	
Hardness of make-up water (mg/l as CaCO <sub>3</sub> )?	
Minimum of 12 inches of fluoride chemical in saturator?	
Metering pump and controls operating properly?	
Back pressure sustaining valve?	
Saturator Cleaning Frequency?	
Fluoride Ion Test Equipment?	
Fluoride Ion Concentration?	
Adequate Cross-Connection Control?	
Comments:	

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<b>Q. ION EXCHANGE</b>	<b><i>NAME/LOCATION</i></b>
Treatment Purpose (softening, Fe/Mn removal, other)?	
Cross-Connection Protection – Water Inlet to Brine Tank?	
Chemicals meet NSF Standards?	
Equipment Literature Available?	
Equipment Condition?	
Equipment Operation Adequate?	
Bypass for Blending?	
Regeneration (automatic, manual)?	
Backwash (gravity from system/storage, pumped, other)?	
No. Backwash Pumps?	
Suitable Sampling Taps (influent, effluent, blended)?	
Corrosion Problem Due to Salt Storage/Usage?	
Suitable Salt Storage (30 days minimum)?	
Salt Storage/Brine Tank Separated from Vulnerable Equipment?	
Disposal of Brine Waste?	
Appropriate & Operable Testing Equipment?	
Comments:	

Y = Yes; N = No; NA = Not Applicable; N/I = Not Inspected; None = None; OK = Acceptable

<b>R. REVERSE OSMOSIS</b>			<i>NAME/LOCATION</i>		
	Satisfactory?		Comments		
	Yes	No			
Treatment purpose			(Fluoride removal, Desalination, other)		
Number & configuration			(Pre-filters, RO units)		
Equipment condition?					
Equipment operation?			(Actual Feed Rate =   gpm; Recovery =   %; Design Feedrate =   gpm; Recovery =   %)		
O&M manual available?					
Bypass for blending?			(Treated =   % <i>or</i> gpm; Bypassed =   % <i>or</i> gpm)		
Flowmeters			Location	Reading	Condition
•					
•					
Pressure gauges			Location	Reading	Condition
•					
•					
Test equipment?			(Equipment; Availability; Condition)		
Performance Monitoring			Parameter	Frequency	Value
Element replacement?			(Schedule or condition; Date last replaced)		
<b>Chemical Pretreatment</b>			Refer to table below		
Chemicals meet NSF 60?					
Concentrate Disposal?			(Location, Condition)		
Field test results - Applied water - Recovered water - Blended water			Temp	pH	Na    F    Other

Y = Yes; N = No; NA = Not Applicable; N/I = Not Inspected; None = None; OK = Acceptable

<b>R. REVERSE OSMOSIS (Cont.)</b>					
Pretreatment Chemical	Function	Conc.	Feedrate	Storage Location/Quantity	Remarks
	Acid for pH adjustment				
	Antiscalant				
	Sequestration of Fe & Mn				
Comments:					

Y = Yes; N = No; NA = Not Applicable; N/I = Not Inspected; None = None; OK = Acceptable



**FM-C1-Attachment 4.** All-System-Types Letter Indicating NOAV.

**INSTRUCTIONS:** Complete/select items shown in *italics* and *underlined*, and convert to regular font. Staff may apply minor editorial judgment for situational correctness. Print on VDH letterhead. Pages are 1" top, bottom, and side margins. [NOTE: If compliance schedules or corrective action plans are developed, they should be included with a separate violation notice attached to the transmittal letter without this heading].

**NOTICE OF ALLEDGED VIOLATION**

SUBJECT: County/City  
WATERWORKS: Waterworks Name  
PWSID: PWSID

Date

Waterworks Owner Name  
Address  
City, State, Zip

Dear Waterworks Owner Name:

On (date), (name of the inspector) of this office conducted a sanitary survey of your waterworks. Enclosed is a copy of the report developed as a result of that survey. Please note our list of comments and recommendations on page x of the inspection report.

This Notice is to advise you that the subject waterworks appears to be in violation of the Commonwealth of Virginia *Waterworks Regulations* as follows:

(Itemize Violations found)

If you have any questions or concerns regarding this matter, or would like to discuss my findings, please contact me at (phone number) or email at (email address).

Sincerely,

Name & Title  
Field office name

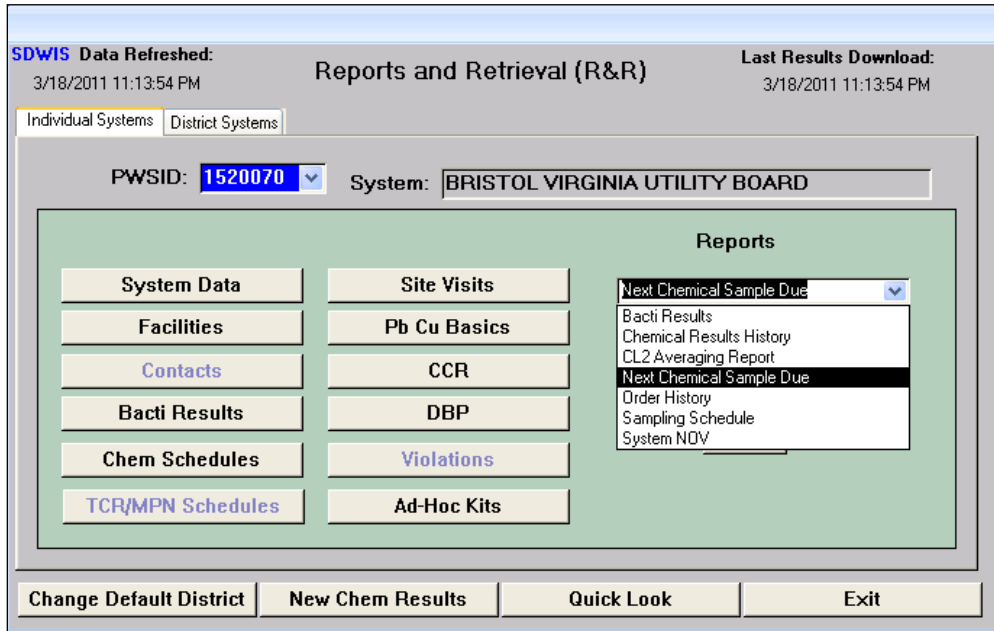
ABC:xyz

Enclosure: Inspection Report

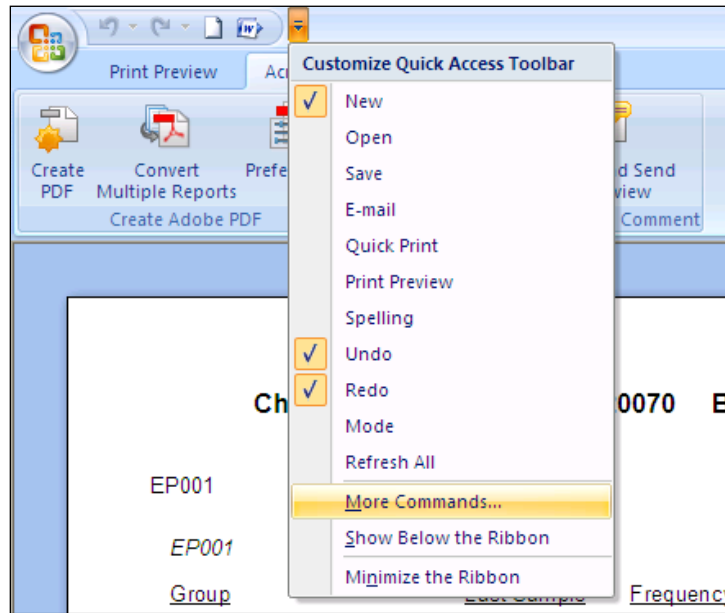
ec: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director.  
Administrator/Manager, name of County, County

## Sanitary Survey Monitoring History – R&R Report Instructions (Microsoft Access 2007)

- Choose the appropriate PWSID under the *Individual Systems* tab.
- Choose Next Chemical Sample Due under the *Reports* bar, click Run.
- Chemical Schedule for corresponding PWSID will appear.

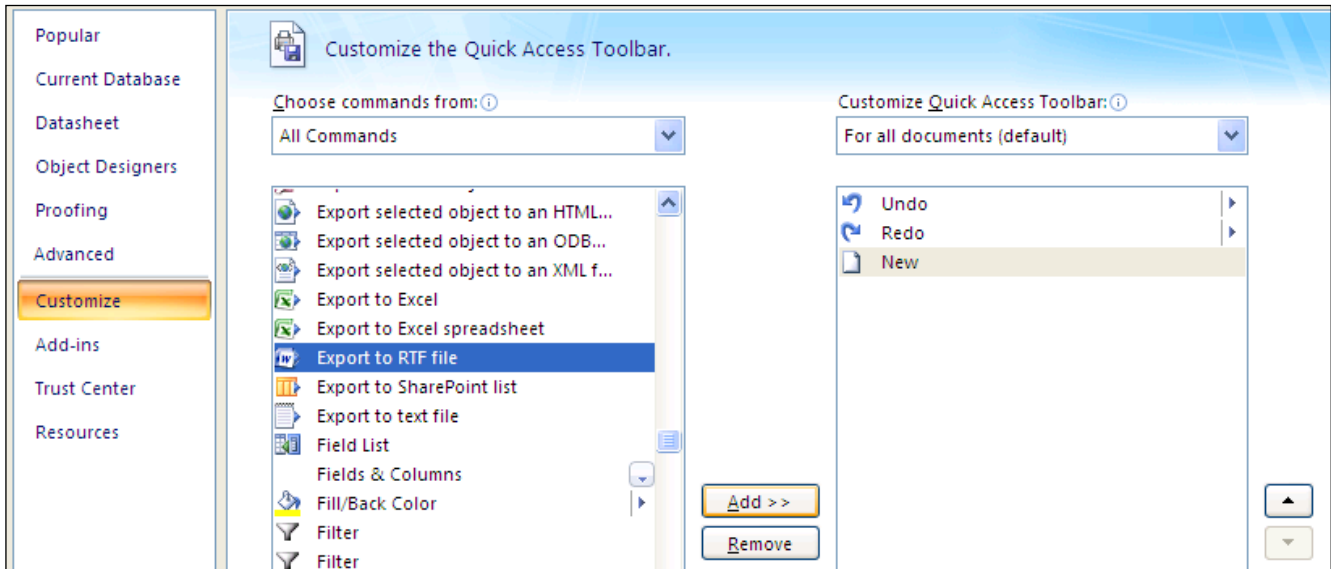


- Click the down arrow near the top left of the report (*Customize Quick Access Toolbar*) and select More Commands.



## SM-C1-Attachment 5. Sanitary Survey Monitoring History-R&R Data Export Instructions.

- In the *Choose commands from* dropdown tab, select All Commands.
- Click Export to RTF file, then Add, then OK.



- Click Browse to choose the file export location, name the file, check the box to open the file after the export is complete, and click OK.
- Copy and paste the report into your sanitary survey by highlighting the exported report, right click and choose Copy, then right click and choose Paste in your sanitary survey report.
- Modify font and font size as needed.

**FM-C1-Attachment 6. SW & GUDI Systems Sanitary Survey Report-Part I System Background & Findings (Gen. Info.).**

**VIRGINIA DEPARTMENT OF HEALTH  
OFFICE OF DRINKING WATER  
SUBPART H SYSTEM SANITARY SURVEY REPORT**

SUBJECT:  
WATERWORKS:  
PWSID:

**PART I - SYSTEM BACKGROUND & FINDINGS**

**GENERAL INFORMATION**

Owner Name:	Waterworks Class:
Type of Waterworks:	
Contact Name:	
Contact Address:	
Contact Phone Number:	

DO License Class:	DO Has Required License:
DO Legal Name:	DO License No./ Exp. Date:

Inspection By:	Inspection Date:
Time Spent:	Last Inspection Date:
Date to Reviewer:	Reviewed by/Date:
Date to Reviewer:	Reviewed by/Date:
Inspection Type: :	
Present at Inspection:	
Facilities Inspected:	

Operation Permit Effective Date:	Waterworks Description Sheet Date:
Permit Up-to-Date?	Description Sheet Up-to-Date?
No. Connections:	Population Served:
Avg. Daily Production:	Operation Permit Capacity:
Exceeds 80% Operation Permit Capacity? (max. 3 consecutive months)	
If yes, explain:	
Treatment Provided:	
SDWIS Inventory Information Current:	

**FM-C1-Attachment 6. SW & GUDI Systems Sanitary Survey Report-Part I System Background & Findings (Gen. Info.).**

**COMPLIANCE HISTORY**

<b>Shaded boxes</b>	<b>indicate a potential Significant Deficiency</b>	
<b>REVISED TOTAL COLIFORM RULE</b>		
• BSSP Approved?	(Yes/No)	(Date)
• # of routine samples/monitoring period & frequency		
• Is plan current & appropriate for distribution system & population?		
• Is monitoring frequency correct?		
• Rotates and uses approved sites?		
• Measures chlorine residual for all samples, if chlorine is added?		
• RTCR Level 1 or 2 Assessments since last Survey?		
<b>DDBP RULES (Community &amp; NTNC)</b>		
• Monitoring Plan approved and current?	(Yes/No)	(Date)
• Monitoring frequency required:		
• Operational Evaluation Level exceeded?		
<b>ESWT RULES</b>		
• Disinfection Profile submitted with Operation Reports or available for review?		
• LT2 Rule - Round 1	<i>Bin #</i>	<i>(Date)</i>
• LT2 Rule - Round 2	<i>Bin #</i>	<i>(Date)</i>
• Treatment upgrades required?		
• If yes, describe:		
<b>PHASE II/V RULE</b>		
• Waivers current for <u>all</u> entry points?		
<b>CONSUMER CONFIDENCE REPORTS (Community only)</b>		
• Final report issued by deadline?		
• Certification Statement Received?		
<b>LEAD &amp; COPPER RULES (Community &amp; NTNC)</b>		
• Materials Survey/Sampling Plan Approved?	(Yes/No)	(Date)
• Water Quality Parameter (WQP) routine monitoring required? (Mandatory for > 50,000 population) ○ If yes, WQPs meet quality and frequency requirements?		
• Have Action Levels (90%) been exceeded in past? ○ If so, when?		
• Public Education requirements met if required?		
• Optimized Corrosion Control Treatment (OCCT) required? ○ If "Yes", is Operational Control Monitoring performed and acceptable?		
• All consumer notice requirements met?		

**FM-C1-Attachment 6. SW & GUDI Systems Sanitary Survey Report-Part I System Background & Findings (Gen. Info.).**

Y = Yes; N = No; NA = Not Applicable; N/I = Not Inspected; None = None; OK = Acceptable

**FM-C1-Attachment 6. SW & GUDI Systems Sanitary Survey Report-Part I System Background & Findings (Gen. Info.).**

<b>CROSS-CONNECTION CONTROL PROGRAM</b>		<b>DATE</b>
• Approved?		
• Inspected Records This Visit? <sup>1</sup>		
○ Program Active <sup>2</sup>		
○ Satisfactory <sup>3</sup>		
<b>(MONTHLY) OPERATION REPORTS</b>		
• All submitted for past 12 months?		
• Operational treatment parameters monitored?		
• All required data reported?		
<b>EMERGENCY MGMT. PLAN for Extended Power Outage (Community only)</b>		
• Verification received?	(Yes/No)	(Date)
• Current?		
<b>SOURCE WATER ASSESSMENT PERFORMED</b>		
• Source: # / Name		
• Source: # / Name		
<b>ENFORCEMENT</b>		
• Administrative/Consent Order in Effect?	(Yes/No)	(Date)
• Violations / Enforcement Actions Since Last Survey? <sup>4</sup>		
• Owner issued Public Notice as required?		
• Active Corrective Action Plan?	(Yes/No)	(Date)
○ If yes, is waterworks on schedule?		
• SDWIS Violation & Enforcement Action, Public Notification data current?		
<b>COMPLAINTS SINCE LAST INSPECTION</b>		
• If YES, summarize:		
Comments:		

Y = Yes; N = No; NA = Not Applicable; N/I = Not Inspected; None = None; OK = Acceptable

<sup>1</sup> See Part C for additional questions

<sup>2</sup> Based on Part C questions

<sup>3</sup> Based on Part C questions

<sup>4</sup> If yes, ODW staff shall review Violations from R&R database and include listing here.



**FM-C1-Attachment 6. SW & GUDI Systems Sanitary Survey Report-Part I System  
Background & Findings (Gen. Info.).**

**MONITORING HISTORY**

Insert R&R report - Next Chemical Sample Due. ~~See WM 851, Attachment G for instructions.~~

**FM-C1-Attachment 6. SW & GUDI Systems Sanitary Survey Report-Part I System Background & Findings (Gen. Info.).**

**SUMMARY**

**PROBLEMS IDENTIFIED AT LAST INSPECTION**

**CORRECTED?**

Inspection Date / Comment # / Description  
Inspection Date / Comment # / Description  
Inspection Date / Comment # / Description  
Inspection Date / Comment # / Description  
Inspection Date / Comment # / Description

Yes or No / explain  
Yes or No / explain  
Yes or No / explain  
Yes or No / explain  
Yes or No / explain

**NEW COMMENTS FROM THIS INSPECTION**

*(Significant deficiencies shall be noted in transmittal letter with CAP requirements).*

Enclosures: Part IIA Part IIB Part IIC Part IID

cc/Att: *(designated operator)* Part IIA Part IIB Part IIC Part IID

*(Optional for Copyholders: Apply as needed; ec = electronic copy)  
ec or cc: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director. Add other copyholders where applicable.*

VDH – Dental Health

**FM-C1-Attachment 7. SW System Unit Process Evaluations-Part IIA.**

**PART IIA**

**UNIT PROCESS EVALUATIONS**

**(Shading Identifies a Potential Significant Deficiency)**

**FACILITIES INSPECTED:**

- A. MICRO / NANO / ULTRA - CLASS MEMBRANE FILTRATION
- B. RAPID MIX
- C. FLOCCULATION/SLOW MIX
- D. SEDIMENTATION
- E. SUPERPULSATORS
- F. SOLIDS CONTACT CLARIFIER
- G. ABSORPTION CLARIFIER
- H. FILTRATION
- I. FINISHED WATER FACILITIES
- J. CHEMICAL FEED FACILITIES - GENERAL
- K. CHLORINE GAS
- L. HYPOCHLORITE
- M. FLUORIDE ACID
- N. FLUORIDE SATURATOR
- O. AMMONIA
- P. CHLORINE DIOXIDE
- Q. OZONE
- R. OPERATIONAL/PERFORMANCE DATA
- S. OPERATIONAL/LABORATORY/STAFF MONITORING PROCEDURES
- T. WASTE HANDLING
- U. EMERGENCY POWER
- V. UV DISINFECTION
- W. GAC CONTACTORS
- X. VIRGINIA OPTIMIZATION PROGRAM REVIEW

**SUPPLEMENTAL AND USEFUL WORKSHEETS**

(Use of these worksheets is optional)

Jar Test Results

Filter Drop Test Worksheet

A. MICRO / ULTRA / NANO - CLASS MEMBRANE FILTRATION

1. Raw Water Holding Tank and Pump Station

Tank Overflow, Drain and Vent Properly Screened?  Yes  No

No. of Raw Water Pumps Provided: \_\_\_\_\_ No. in Operation: \_\_\_\_\_

Pump house/room condition?  Satisfactory  Unsatisfactory

2. Pre-Screen/Pre-Filter

No. Provided? \_\_\_\_\_ No. In Operation? \_\_\_\_\_

Mode of Operation?  Series  Parallel

Pore Size Rating? \_\_\_\_\_ μm

Headloss across Pre-Screen/Pre-Filter in use? \_\_\_\_\_ psi

Headloss which initiates automatic cleaning/flushing? \_\_\_\_\_ psi

Cleaning Frequency? \_\_\_\_\_ Date Last Cleaned? \_\_\_\_\_

Overall appearance/performance?  Satisfactory  Need Attention

3. Required Pretreatment Chemical added to Raw Water?  Yes  No  NA

CHEMICAL APPLIED	APPLICATION POINT	FEED RATE

Chemicals Meet ANSI / NSF Standard 60 or "GRAS"?  Yes  No

4. Membrane Filters

Class of Membrane?  Micro  Ultra  Nano Manufacturer? \_\_\_\_\_

No. of Membrane Units Provided? \_\_\_\_\_ No. In Operation? \_\_\_\_\_

No. of Membrane Modules/Unit? \_\_\_\_\_

Design Capacity of each Unit? \_\_\_\_\_ System Design Capacity? \_\_\_\_\_

Design flux rate? \_\_\_\_\_

Exceeds permitted filter loading rate?  Yes  No

5. Mode of Operation?  Series  Parallel

6. Membrane Unit Appurtenances (operable and in good operating condition)

All Valves/Controls?  Yes  No  NA

Pressure Gauges?  Yes  No  NA

Filter Rate-of-Flow Indicator?  Yes  No  NA

Filter Rate-of-Flow Controls?  Yes  No  NA

Backwash Rate-of-flow Indicator?  Yes  No  NA

Feed Pump(s)?  Yes  No  NA

Backwash Pump(s) Controls?  Yes  No  NA

PLC/Solenoids?  Yes  No  NA

Adequate Spare Parts Inventory?  Yes  No  NA

7. Transmembrane pressure? Unit #? \_\_\_\_\_ psi Unit #? \_\_\_\_\_ psi
8. Unit Alarm Set Point? \_\_\_\_\_ psi for \_\_\_\_\_ seconds  
 Shutdown Alarm Operational?  Yes  No  
 Unit Shutdown Set Point? \_\_\_\_\_ psi for \_\_\_\_\_ seconds
9. No. of In-Line Turbidimeters? \_\_\_\_\_ No. In Operation? \_\_\_\_\_  
 Raw/Feed Water Unit # \_\_\_\_\_ ? \_\_\_\_\_ NTU  
 Raw/Feed Water Unit # \_\_\_\_\_ ? \_\_\_\_\_ NTU  
 Raw/Feed Water Plant Shutdown Set Point? \_\_\_\_\_ NTU  
 Shutdown Alarm Operational?  Yes  No  
 Raw/Feed Water Turbidimeter Recording Unit(s) Operational?  Yes  No  NA  
 Product Water Unit # \_\_\_\_\_ ? \_\_\_\_\_ NTU  
 Product Water Unit # \_\_\_\_\_ ? \_\_\_\_\_ NTU  
 Product Water Unit # \_\_\_\_\_ ? \_\_\_\_\_ NTU  
 Product Water Plant Shutdown Set Point? \_\_\_\_\_ NTU  
 Shutdown Alarm Operational?  Yes  No  
 Product Water Turbidimeter Recording Unit(s) Operational?  Yes  No  NA  
 In-Line Turbidimeter Calibration Frequency? \_\_\_\_\_  
 Date(s) of Last Calibration? \_\_\_\_\_
10. Direct integrity test (DIT) - observed conditions:  
 Frequency of direct integrity test? \_\_\_\_\_  
 Start pressure? \_\_\_\_\_ psi  
 Stabilization period? \_\_\_\_\_ minutes ( ) NA  
 Date of Last Test? \_\_\_\_\_ Initial pressure? \_\_\_\_\_ psi Final pressure? \_\_\_\_\_ psi  
 Pressure decay rate? \_\_\_\_\_ psi/minute  
 Alarm set point? \_\_\_\_\_ psi/minute  
 Shutdown set point? \_\_\_\_\_ psi/minute  
 DIT conducted after diagnostic testing, scheduled maintenance, or repair? ( ) Yes ( ) No
10. Membrane Flushing (Reverse Filtration/Backwashing) based on?  
 Plant Startup  
 Excess Pressure Differential (from Pressure Hold Test) [ \_\_\_\_\_ psi drop over \_\_\_\_\_ minutes]  
 Transmembrane Pressure ( \_\_\_\_\_ psi)  Product Water Turbidity [ \_\_\_\_\_ ntu]  
 Time [ \_\_\_\_\_ minutes]  N/A  
 Air Scrub performed during flushing?  Yes  No  NA
11. Air Supply System  NA  
 No. of Air Compressors Provided? \_\_\_\_\_ No. in Operation? \_\_\_\_\_  
 Air Regulating Valves Operational?  Yes  No  
 Required Minimum Air Pressure Setting? \_\_\_\_\_ psi Plant Shutdown Setting? \_\_\_\_\_ psi  
 Pressures meeting required minimums?  Yes  No  
 Manual Air Gauges Operable?  Yes  No  
 Compressor condensation drain lines open and screened?  Yes  No  
 Auto Plant Shutdown for low air pressure operable?  Yes  No

12. Clean In Place (CIP) System

- Frequency? \_\_\_\_\_ Last Performed? \_\_\_\_\_  
 CIP Frequency? \_\_\_\_\_ Last Performed? \_\_\_\_\_  
 Clean In Place Tank Heater Operable?  Yes  No  
 Clean In Place Tank Satisfactory?  Yes  No  
 Chemical Feed Pumps Provided?  Yes  No  
 Cleaning Products? \_\_\_\_\_  
 Cleaning Chemicals meet NSF Standard 60?  Yes  No  
 CIP Manual Control Valves Operable?  Yes  No  
 Recirculation Pump Operable?  Yes  No  
 Spare recirculation pump available?  Yes  No  
 PH Meter Operable?  Yes  No  
 Membrane Integrity Test performed after CIP?  Yes  No
- Mini-Clean (Enhanced Flux Maintenance) Practiced?  Yes  No  
 Frequency? \_\_\_\_\_

13. Frequency of Sonic Testing? \_\_\_\_\_ Date Last performed? \_\_\_\_\_

14. Normal Filter Module Replacement Frequency? \_\_\_\_\_  
 Date Filter Modules Last Replaced? \_\_\_\_\_ No. Replaced? \_\_\_\_\_

15. Filter backwash wastewaters discharged to?  lagoons  holding tank/sand beds  
 other (describe): \_\_\_\_\_

16. Ultimate discharge of waste flows? \_\_\_\_\_

17. Evaluation of Giardia cyst inactivation for Membrane Plants

Required log Giardia inactivation by disinfection? \_\_\_\_\_ [0.5 log or as designated by WOP]

Post-filter CT operating data:

Parameter	Required (min/max)	Observed	Comments
Free residual chlorine, mg/L?			
pH?			
Temperature, °C?			
Clearwell water depth, ft?			
Flow rate, gpm?			

Do the “observed” CT data in the above tables indicate that 3-log Giardia inactivation is being achieved by filtration plus post-filter disinfection processes?  Yes  No

18. Do the CT data from the daily logs since the last inspection indicate continuous adequate Giardia inactivation by filtration plus post-filter disinfection processes? Yes No

19. In-line Chlorine Residual Monitor & Recorder Operable? Yes No

Does the Recorder feature meet the requirements for 'continuous' recording? Yes No

Does the chlorine residual monitor have an alarm? Yes No

Is there a 'warning' alarm set point chlorine residual level? Yes No

Does the alarm have a plant auto shutdown set point and shut down capability? Yes No

B. RAPID MIX

1. Number of units? \_\_\_\_\_ Number in service? \_\_\_\_\_
2. Type of mixing provided? conventional static in-line Other \_\_\_\_\_
3. Operable mixer available to meet mixing requirements? Yes No N/A
4. If conventional units:  
Variable speed control operational? Yes No N/A  
Evidence of vortexing? Yes No  
Proper mixing obtained? Yes No
5. Chemicals being applied, point(s) of application:

Chemical Applied	Application Point	Feed Rate

6. Spare mixer provided? Yes No
7. General performance? satisfactory needs attention
8. Physical condition of unit? satisfactory needs attention

COMMENTS:



C. FLOCCULATION/SLOW MIX

1. Number of basins? \_\_\_\_\_ Number in service? \_\_\_\_\_
2. Mode of operation? series parallel NA
3. All mixers operational? Yes No
4. Operable mixers available to meet mixing requirements? Yes No
5. Variable speed control operational? Yes No NA
6. Tapered flocculation practiced? Yes No NA
7. Isolation of basins/continued plant operation? Yes No NA
8. Are proper baffles/compartments provided? Yes No
9. Evidence of vortexing/basin short-circuiting? Yes No
10. Overall floc formation? good fair poor undetectable
- Floc type/appearance? pin floc fluffy sweepfloc other\_\_\_\_\_
11. Are polymers used? Yes No
12. General performance? satisfactory needs attention
13. Physical condition of unit? satisfactory needs attention

COMMENTS:

D. SEDIMENTATION

1. No. of basins provided? \_\_\_\_\_ No. in operation? \_\_\_\_\_

2. Proper flow distribution between basins?  Yes  No

3. Signs of short circuiting/overloads?  Yes  No

4. Evidence of floc shear at stilling wall?  Yes  No

5. Floc carry-over observed?  Yes  No

6. Floc settleability?  satisfactory  needs attention

7. Sludge removal?  manual  mechanical

If manual? \_\_\_\_\_ times/year; Last cleaned? \_\_\_\_\_; Next scheduled cleaning? \_\_\_\_\_

If mechanical, is equipment operable?  Yes  No

Excessive sludge accumulation?  Yes  No

If "Yes", estimate sludge blanket depth? \_\_\_\_\_

8. Chemicals added, application point(s):

Chemical Applied	Application Point	Feed Rate

9. General performance?  satisfactory  needs attention

10. Physical condition of unit?  satisfactory  needs attention

E. SUPERPULSATORS (*replaces FLOCCULATION AND SEDIMENTATION*)

1. No. of units provided?                      No. in operation?
2. Proper flow distribution between basins?    Yes    No
3. Can each unit be sampled at multiple levels? Yes    No
4. Chemicals being applied, point(s) of application:

Chemical Applied	Application Point	Feed Rate

5. Signs of short circuiting/overloading?    Yes    No
6. Are settleability tests run?                      Recorded?
7. Sludge blanket established?                      Yes    No
8. Sludge blanket appearance?                      Dispersed    Normal    Unusual Color (septic)
9. Sludge depth measurement tool available?  
Blanket depth? Unit No. 1? =                      Unit No. 2? =
10. Sludge removal:  
Basins last cleaned date?  
Controlled manually or by time clock? Explain.  
Mechanical removal equipment operable?                      Yes    No  
Evidence of sludge carryover to filters?                      Yes    No
11. "Vacuum" Pumps - Number Provided? \_\_\_\_\_ Number Operable? \_\_\_\_\_
12. Overall appearance/performance?                      satisfactory    needs attention

F. SOLIDS CONTACT CLARIFIER (*replaces FLOCCULATION AND SEDIMENTATION*)

1. No. of units provided? \_\_\_\_\_ No. in operation? \_\_\_\_\_

2. Floc carry-over observed?  Yes  No

3. Media cleaning: Sludge removal & backflush/removal?  manual backflush/removal  automated

4. How often are units sludge wasted? \_\_\_\_\_

Backflush/wasting based on?  head loss \_\_\_\_\_ feet

time \_\_\_\_\_ hours

turbidity \_\_\_\_\_ NTU

5. Chemicals added, application point(s):

Chemical Applied	Application Point	Feed Rate

6. General performance?  satisfactory  needs attention

7. Physical condition of unit?  satisfactory  needs attention

COMMENTS:

G. ABSORPTION UNIT CLARIFIER (*replaces FLOCCULATION AND SEDIMENTATION*)

1. No. of units provided? \_\_\_\_\_ No. in operation? \_\_\_\_\_
2. Clarifier media type?     synthetic beads     floc blanket     other : \_\_\_\_\_
3. Media in good condition, stable?     Yes   No  
     Date media last replaced (where applicable)? \_\_\_\_\_
4. Media retention screen in good condition?   Yes   No   N/A
5. Floc carry-over observed?     Yes   No
6. How often are units sludge wasted? \_\_\_\_\_  
     Backflush/wasting based on?   head loss \_\_\_\_\_ feet  
    time \_\_\_\_\_ hours  
    turbidity \_\_\_\_\_ NTU
7. Is air scour provided and operable?     Yes   No   NA
8. Chemicals added, application point(s)?

Chemical Applied	Application Point	Feed Rate

9. General performance?     satisfactory   needs attention
10. Physical condition of unit?   satisfactory   needs attention

COMMENTS:

H. FILTRATION

1. No. of filters provided? \_\_\_\_\_ No. in operation? \_\_\_\_\_

2. Filter media?  sand  sand/anthracite  sand/anthracite/garnet  other \_\_\_\_\_

Date media last added or changed? \_\_\_\_\_

Frequency media depth checked? \_\_\_\_\_

Frequency operator checks filtration rate? \_\_\_\_\_ Date last checked? \_\_\_\_\_

Values observed for individual filters?

Filter No.	Effluent Turbidity (NTU)	Loading Rate (gpm/ft <sup>2</sup> )

Design: \_\_\_\_\_ gpm at \_\_\_\_\_ gpm/ft<sup>2</sup>

Exceeds permitted rate?  Yes  No

Was filtration rate checked?  Yes  No

(see attached worksheet)

3. Filter appurtenances operable and in good condition? Last Calibrated?

All valves/controls?  Yes  No \_\_\_\_\_

Filter rate-of-flow controls?  Yes  No \_\_\_\_\_

Filter rate-of-flow indicator / recorder?  Yes  No \_\_\_\_\_

Loss of head indicator / recorder?  Yes  No \_\_\_\_\_

Surface wash?  Yes  No  NA

If yes, backflow preventer provided?  Yes  No  NA

Air scour?  Yes  No  NA

Backwash pump(s)/controls?  Yes  No \_\_\_\_\_

Backwash rate-of-flow indicator?  Yes  No \_\_\_\_\_

4. Filter backwash practices:

Filter backwash based on plant established maximum values?  Yes  No

Filter backwash based on?  head loss \_\_\_\_\_ feet  
 time \_\_\_\_\_ hours  
 turbidity \_\_\_\_\_ NTU  
 particle counts \_\_\_\_\_ particles/ \_\_\_\_\_ ml: size range \_\_\_\_\_

Average/maximum before backwash (over past 3 months)?

filter run times? \_\_\_\_\_ hours

head loss? \_\_\_\_\_ feet

turbidity? \_\_\_\_\_ NTU                      particles? \_\_\_\_\_ / \_\_\_\_\_

Filter backwash observed?  Yes  No

Satisfactory?  Yes  No  NA

Frequency operator checks backwash rate? \_\_\_\_\_ Date last checked? \_\_\_\_\_

5. Filter-to-waste practiced?  Yes  No  NA

Is filter to waste at design filtration rate?  Yes  No

Average filter-to-waste (rewash) time? \_\_\_\_\_

Is turbidity monitored during filter-to-waste?  Yes  No  NA

Criteria established for filter-to-waste: duration? \_\_\_\_\_

Are particles counted/monitored during procedure?  Yes  No

6. Is filter backwashed after any/all shutdowns?  Yes  No

If "No", does operator start filter with filter-to-waste after filter has been idle, before delivering flows to system?  Yes  No

7. General performance?  satisfactory  needs attention

8. Physical condition of units?  satisfactory  needs attention

COMMENTS:

I. FINISHED WATER FACILITIES

1. Clear well

Access protected from contamination?  Yes  No

Overflow protected from contamination/flooding?  Yes  No

Adequate drain?  Yes  No

Screened vent(s)?  Yes  No

Watertight roof/cover?  Yes  No

Hatch(s) secure?  Yes  No

Viewing port with light?  Yes  No

Sediment present?  Yes  No

Last cleaned? \_\_\_\_\_

Physical condition?  satisfactory  needs attention

2. Finished water pumps?

Number of pumps provided? \_\_\_\_\_

Number of pumps operable? \_\_\_\_\_

Number of pumps in use? \_\_\_\_\_

Pressure gauges provided/operable? \_\_\_\_\_ psig  Yes  No

Flow meter operable?  Yes  No

Pumping rate? \_\_\_\_\_ MGD

Physical conditions?  satisfactory  needs attention

3. Is clearwell water level monitored/controlled?  Yes  No  NA

4. Are level sensors operable?  Yes  No  NA

5. Chemicals added, point(s) of application:

Chemical Applied	Application Point	

6. Approved backflow device to isolate process water at treatment plant from distribution system?  Yes  No

COMMENTS:



J. CHEMICAL FEED FACILITIES – GENERAL

The following chemicals are fed at this facility:

*Note to evaluator: May delete chemicals that are not applicable. Add/replace chemicals with 'Trade Name' and/or 'Chemical Name' where applicable.*

Chemical	No. of Feeder/Pumps Available / In Service	Chemical	No. of Feeder/Pumps Available / In Service
<input type="checkbox"/> alum		<input type="checkbox"/> KMnO <sub>4</sub>	
<input type="checkbox"/> ferric salt		<input type="checkbox"/> activated carbon	
<input type="checkbox"/> ferrous salt		<input type="checkbox"/> fluoride	
<input type="checkbox"/> polymer (coag. aid)		<input type="checkbox"/> phosphate	
<input type="checkbox"/> polymer (filter aid)		<input type="checkbox"/> chlorine	
<input type="checkbox"/> lime		<input type="checkbox"/> ammonia	
<input type="checkbox"/> caustic		<input type="checkbox"/> ozone	
<input type="checkbox"/> soda ash		<input type="checkbox"/> sodium chlorate (ClO <sub>2</sub> generation)	
<input type="checkbox"/> other			

Chemicals certified to meet NSF Standard 60?

Yes  No

2. Any chemical feed changes that could affect Pb/Cu monitoring?

Yes  No

3. All feeders in good condition?

Yes  No

Adequate ventilation provided?

Yes  No

4. Adequate backflow prevention on solution water?

Yes  No

Date last inspected?

Anti-siphon devices on feed lines?

Yes  No

5. Feeders calibrated on a regular basis?

Yes  No

(Recommend quarterly)

Frequency operators calibrate feeders? \_\_\_\_\_

Date last calibrated? \_\_\_\_\_

Frequency operators check calibrations? \_\_\_\_\_

Date last checked? \_\_\_\_\_

6. Adequate chemical storage area provided (space, spill prevention)?

Yes  No

7. Is CORROSION CONTROL practiced at this facility?

Yes  No

If Yes, indicate method(s):

pH/alkalinity adjustment

corrosion inhibitor

other \_\_\_\_\_

8. Physical condition of chemical feed facilities? satisfactory needs attention
9. Do any of the chemical storage or handling facilities offer potential for explosions? Yes No
10. Other safety problems for the operators or public noted? Yes No  
Describe \_\_\_\_\_

Comments:

#### K. CHLORINE GAS

1. Adequate ventilation? Yes No
2. Cylinders chained? Yes No
3. Panic hardware? Yes No
4. Cylinder repair kit? Yes No
5. Chlorine scales operable? Yes No
6. Automatic change-over provided/operable? Yes No
7. Regulator vent properly installed/screened? Yes No
8. Leak detection provided/operable (type? \_\_\_\_\_) Yes No
9. Outside entrance/exit? Yes No
10. Room gas-tight, floor drains sealed? Yes No
11. Breathing apparatus available? Yes No

#### L. HYPOCHLORITE

1. Solution tank in good condition? Yes No
2. Solution tank covered? Yes No
3. Drain provided? Yes No
4. Spill containment adequate? Yes No
5. Stored away from organics and acids? Yes No
6. Gloves, apron & eye protection? Yes No
7. Eyewash/safety shower provided? Yes No

M. FLUORIDE ACID

- 1. Weighing scale and recorder provided and in good condition? Yes No
- 2. Long gloves, apron & goggles/face shield provided? Yes No
- 3. Flowmeter/fluoride feed pacer/other control system provided, in good operating condition?  
Yes No
- 4. Anti-siphon protection (Back pressure sustaining valve)? Yes No
- 5. Feeder/metering pump operable and in good condition? Yes No
- 6. Injection line in good condition? Yes No
- 7. Separate feeder/storage room? Yes No
- 8. Room ventilation adequate? Yes No
- 9. Carboy/tank vented to outdoors? Yes No
- 10. Carboy/tank openings sealed? Yes No
- 11. Chemical meets NSF standards? Yes No

N. FLUORIDE SATURATOR

- 1. Anti-Siphon vacuum breaker on make-up water line (upflow)? Yes No NA
- 2. Air gap on make-up water line (downflow)? Yes No NA
- 3. Back pressure sustaining valve? Yes No
- 4. Particulate respirator, gloves, goggles, coveralls? Yes No
- 5. Operational water meter on make-up water line  
(between softener and saturator, if applicable)? Yes No
- 6. Water meter read and volume recorded daily? Yes No
- 7. Frequency of softener regeneration/replacement? Yes No NA
- 8. Upflow saturator pick-up float assembly operational? Yes No
- 9. Metering pump and controls operating properly? Yes No
- 10. Fluoride Ion Test Equipment in good condition? Yes No
- 12. Hardness of make-up water (mg/L as CaCO<sub>3</sub>)?
  - Water softener provided and in good operating condition? Yes No NA
  - Softener effluent hardness maintained <75 mg/l? Yes No NA
- 13. Minimum 12 inches of sodium fluoride in saturator? Yes No NA
- 14. Saturator cleaning frequency? \_\_\_\_\_
- 15. Room ventilation adequate? Yes No
- 16. Chemical meets NSF standards? Yes No

O. AMMONIA

1. Adequate ventilation? Yes No
2. Panic hardware? (Gas supply only) Yes No NA
3. Cylinder repair kit? (Gas supply only) Yes No NA
4. Outside entrance/exit? (Gas supply only) Yes No NA
5. Are there any brass, bronze or other copper alloy fittings used or present in the ammonia feed system?  
Yes No
6. Injection points stainless steel end-type diffusers with corporation stops? Yes No
7. Ammonia metering pumps provided? Yes No Working? Yes No
8. Chlorine to Ammonia feed ratio? \_\_\_\_\_ Adequate? Yes No
9. Discharge gauges provided on metering pump discharge piping? Yes No  
Working? Yes No
10. Discharge gauge pressures reading? \_\_\_\_\_ psi
11. Feed facility ventilation adequate? Yes No
12. Ammonia leak detection monitor available? Yes No  
Working? Yes No
13. Ammonia storage tank condition? satisfactory needs attention
14. Ammonia storage tank sight level gauge provided? Yes No  
Working? Yes No
15. Ammonia storage tank pressure gauge provided? Yes No  
Working? Yes No  
Reading? \_\_\_\_\_ psi
16. Recirculation connection to displace the ammonia vapors back into the delivery truck when filling the tank provided? Yes No  
Condition: satisfactory needs attention
17. Ammonia storage tank spill containment structure condition? satisfactory needs attention

P. CHLORINE DIOXIDE

1. Type of Generation Facility?  
 Conventional, Chlorine Gas + water + Sodium Chlorite  
 Solid Matrix Generator  
 Acid Boosted = HOCl+ Cl<sub>2</sub>+ NaCl  
 Other: \_\_\_\_\_
2. Chlorine gas flow control system? (refer to K: CHLORINE GAS)
3. Acid Feed Control System? Yes No
4. Sodium Chlorite liquid feed control system? Yes No
5. Chlorine Dioxide Generation Facility and Control System? Yes No
6. Electronic Scales: Last Calibration Date? \_\_\_\_\_  
Clear of debris and water? Yes No
7. Reactor Cartridges: NaCl<sub>2</sub> Maximum Weight? \_\_\_\_lbs  
Weight Observed? Yes No Reactor 1?\_\_\_\_ Reactor 2?\_\_\_\_
8. Operating within Spec? Yes No
9. Storage satisfactory? Yes No
10. Adequate ventilation? Yes No NA
11. Piping and components constructed of non-corrosive material? Yes No
12. Quick Disconnect couplings installed? Yes No
13. Humidifier Installed? \_\_\_\_\_ Operable? Yes No NA
14. Leak detection? Yes No NA Type? \_\_\_\_\_
15. Operating Temperature Specifications? Minimum Temp? \_\_\_\_ °F Maximum Temp? \_\_\_\_ °F  
Observed? \_\_\_\_ °F Operating within Spec? Yes No NA
16. Alarm set points and interlocks:  
Low Air Flow Set Point? \_\_\_\_\_SCFM\_ Operable? Yes No NA  
Low Differential Pressure? \_\_\_\_\_” HG Operable? Yes No NA  
Low vacuum? \_\_\_\_ inches Hg Operable? Yes No NA  
Low Temperature? \_\_\_\_ °F Operable? Yes No NA
17. Have standard operating procedures for the ClO<sub>2</sub> generation been submitted to and approved by ODW?  
Yes No
18. Were the standard operating procedures readily available at the inspection? Yes No NA
19. Has an operations and maintenance manual been submitted to VDH-ODW? Yes No NA
20. Chlorine Dioxide Maximum Production Observed? \_\_\_\_\_  
Operating within Spec? Yes No NA

21. Chlorine Dioxide Generation and Feed Rate:

GENERATING AGENT	APPLICATION POINT	GENERATION FEED RATE
Chlorine		
Sodium Chlorite(NaCl2)		
CHEMICAL APPLIED	APPLICATION POINT	PRODUCTION RATE
Chlorine Dioxide		

22. Generator yield and balance data:

PRODUCTION YIELD CALCULATIONS

CE = measured generator effluent concentration of ClO<sub>2</sub>: \_\_\_\_\_ ppm

M = production rate of ClO<sub>2</sub>, lb/day: \_\_\_\_ lb/day

F = water flow rate through generator, gpm: \_\_\_\_\_ gpm (Note: this is the raw water flow)

C = calculated concentration

(Note: Use this data to determine if the system is in balance for generation vs applied dose.)

$C = \{m/(24h/d)/(2.2 \text{ kg/lb})\} \cdot (10^6 \text{ mg/kg}) / F \cdot (3.785 \text{ L/gal}) \cdot (60 \text{ min/h}) =$  \_\_\_\_\_ ppm

Does the measured, CE, ClO<sub>2</sub> value compare to the calculated, C, value from above?

Yes  No  NA

If no, any changes made, interferences identified, etc: \_\_\_\_\_

23. ClO<sub>2</sub> concentration entry point system: measured? \_\_\_\_\_ ppm

Frequency of analysis?  Daily  Weekly  Monthly  Other

Analysis method?

Amperometric Method I, 4500-ClO<sub>2</sub> C

Amperometric Method II, 4500-ClO<sub>2</sub> D

DPD Method, 4500 – ClO<sub>2</sub> E

24. Chlorite ion concentration? \_\_\_\_ ppm  N/A, Not currently feeding

(Samples are required daily by the waterworks and monthly by a certified lab)

Daily At plant - DPD Method, 4500 – ClO<sub>2</sub> E , Result? \_\_\_\_\_ ppm

Monthly - USEPA Method 300.0, Ion Chromatography

Last Test Performed? \_\_\_\_\_ By? \_\_\_\_\_ Result? \_\_\_\_\_

25. Do any of the chemical storage or handling facilities offer potential for explosions?  Yes  No

26. Is gas mask available?  Yes  No Location? \_\_\_\_\_

Last Checked? \_\_\_\_\_

27. Other safety problems for operators or public noted?  Yes  No

If yes, describe: \_\_\_\_\_

Q. OZONE

1. Ozone Components:

No. of _____ gal LOX Tanks?	Provided? _____	In Service? _____
No. of Vaporizers?	Provided? _____	In Service? _____
No. of _____ ppd Generators?	Provided? _____	In Service? _____
No. of Contact Chambers?	Provided? _____	In Service? _____

2. Diffusers Last Inspected? \_\_\_/\_\_\_/\_\_\_

3. Ozone Monitoring:

Continuous Monitoring Provided?  Yes  No

Probe Calibration? \_\_\_\_\_ (must be per Toolbox Guidance Manual, App C.)

Probe Last Calibrated? \_\_\_/\_\_\_/\_\_\_

Frequency of Calibration Checks? \_\_\_\_\_ (must be at least weekly)

Portable Monitors used?  Yes  No

If so: Last Calibrated? \_\_\_/\_\_\_/\_\_\_ Availability? On-site / Central location / Call in \_\_\_\_\_

Type of Portable Monitor/Kit? \_\_\_\_\_

Uses an approved method?  Yes  No

4. Chemical Feed to Contact Chamber(s) and Disinfection Performance:

Chemical Applied	Raw Feed	Feed Rate	Initial Residual *
Ozone	___ scfm at ___ %	___ mg/L	___ mg/l

\*Location of first measurement: \_\_\_\_\_

Disinfectant Applied	CT	Giardia Inactivation	Virus Inactivation
Ozone	___ mg/l-min	___ -log	___ -log

Current Ozone Control Method: \_\_\_\_\_ Dose Control or CT Control  
 \_\_\_\_\_ (Effluent or Log-Integration) Method Calculation Verified? \_\_\_/\_\_\_/\_\_\_ (date)

5. Hydraulic Efficiency (Baffling) Factor? \_\_\_\_\_

6. Tracer Study Performed?  Yes  No \_\_\_/\_\_\_/\_\_\_ (date)

7. Is dosing adequate to meet CT requirements?  Yes  No

8. Have CT requirements been consistently met with Ozone since last inspection?  Yes  No

9. Monthly Operational Report ozone and CT credit data complete and satisfactory?  Yes  No

10. Have Giardia and virus CT requirements been met for the facility (all disinfectants)?  Yes  No

11. Ozone Destruct Units Operational (air borne)?  Yes  No

12. Ozone Quench Operational (aqueous)?  Yes  No

13. Ambient Ozone detectors operational?  Yes  No

14. Describe the ozone residual monitoring points: \_\_\_\_\_

15. Describe the reliability of the power supply for the ozone generators: \_\_\_\_\_

16. Describe the alarms that would notify the operator in the event of a low ozone event. Describe the actions to be taken, either automatically or manually to address a low ozone event, which could result in inadequate CT: \_\_\_\_\_

COMMENTS



R. OPERATIONAL/PERFORMANCE DATA

Constant Monitoring Equipment	Operable	Inline Reading	Bench Reading	Corresponds To Desk Unit	Computer Reading	Corresponds To Computer
raw pH						
flash mix pH						
finished pH						
raw turbidity						
sed basin 1 turbidity						
sed basin 2 turbidity						
filter 1 turbidity						
filter 2 turbidity						
filter 3 turbidity						
finished turbidity						
finished chlorine						

1. At time of inspection (*Check last lab bench instrument values*):

Parameter	RAW Frequency/ Results	APPLIED <sup>1</sup> Frequency/ Results	FINISHED Frequency/ Results
Free Cl <sub>2</sub> (mg/L)			
Turbidity (NTU)			
pH			
Alkalinity (mg/L as CaCO <sub>3</sub> )			
Hardness (mg/L as CaCO <sub>3</sub> )			
Temperature °C			
Fluoride (mg/L)			
Iron (mg/L)			
Manganese (mg/L)			
Other (CO <sub>2</sub> , PO <sub>4</sub> , etc.)			

Plant flow at time of inspection? Raw Water: \_\_\_\_\_MGD; Finished Water: \_\_\_\_\_MGD

<sup>1</sup> Replace with FILTRATE if membrane treatment

S. OPERATIONAL/LABORATORY STAFF MONITORING PROCEDURES

1. Hours plant is operated per day? \_\_\_\_\_
2. Designated Operator (DO) - Hours/Day present? \_\_\_\_\_

List all operators and their classification that work at this facility:

Name (as shown on license)	License Class	License Number	Expiration Date	Remarks

Is the staffing in accordance with the Waterworks Regulations?  Yes  No

3. How are operating decisions made and communicated?

Are there criteria and procedures established for plant shut down in case of unit process failure or upset or in event of significant overall quality degradation?  Yes  No

4. RECORDS RETENTION in accordance with *Regulations*?  Yes  No

5. Are daily log/data sheets readily available?  Yes  No

Were these daily log/data sheets reviewed?  Yes  No

Are the daily log/data sheets adequate?  Yes  No

Is the frequency of operational data collection adequate?  Yes  No

Are there any obvious problems noted from the log entries?  Yes  No

6. How is the COAGULATION PROCESS controlled?

Pilot Filter

Jar Tests

Zeta Meter

Streaming Current Monitor

Were coagulation control procedures observed / discussed?  Yes  No

Were the procedures adequate?  Yes  No

7. Is equipment in good condition?

pH meter?  Yes  No

Jar test machine?  Yes  No

Zeta meter?  Yes  No  NA

Pilot filters?  Yes  No  NA

Streaming current monitor?  Yes  No  NA reading (if applicable): \_\_\_\_\_

Particle counter/monitor?  Yes  No  NA

8. What is the frequency of (combined) FILTER EFFLUENT TURBIDITY monitoring?

\_\_\_ times per shift       continuous

Is this frequency adequate (at least every 4 hours)?       Yes    No    NA

Are continuous monitoring units operational?       Yes    No    NA

Are the on-line (continuous) units calibrated at least quarterly?       Yes    No    NA

Do continuous monitor readings correspond to desk-top unit readings?       Yes    No    NA

Does each filter effluent have an individual continuous turbidity monitor?       Yes    No

Does the filter effluent turbidity monitoring system have alarm set points?       Yes    No

Alarm set point(s)? \_\_\_\_\_ Alarm type? \_\_\_\_\_

Is data recorded at least every 15 minutes?       Yes    No

Is data kept for 3 years?       Yes    No

Desk-top turbidimeter manufacturer? \_\_\_\_\_ Model No.? \_\_\_\_\_

Date last calibrated? \_\_\_\_\_

Calibration date posted?    Yes    No

Date bulb last changed? \_\_\_\_\_ Spare bulb on hand?       Yes    No

Condition of cuvettes? \_\_\_\_\_

Primary standard used?       Stablcal       Formazin       Amco AEPA-

Expiration Date of primary standard? \_\_\_\_\_

Secondary standard used? \_\_\_\_\_

Age of secondary standard? \_\_\_\_\_

Date secondary last compared to primary? \_\_\_\_\_

Turbidity-free water available?    Yes    No

9. Method of CHLORINE RESIDUAL monitoring? \_\_\_\_\_

Continuous residual monitor operational? (required for Population > 3,300)       Yes    No    NA

Does each analyzer have the readout at its installation and continuous recording (hard copy chart or electronic data)?       Yes    No

Is data recorded at least every 15 minutes?       Yes    No

Is an alarm activated when chlorine concentration is outside normal operating range?       Yes    No

Set limits: Min.? \_\_\_\_\_ Max.? \_\_\_\_\_

Are grab samples collected at least weekly for routine calibration checks for each on-line analyzer?       Yes    No

Is a sample tap for grab samples located as close as feasible to where samples enter the on-line analyzer?

Yes    No

What method is used to analyze grab samples? \_\_\_\_\_

If system serves  $\leq 3,300$ , frequency of residual monitoring (Grab Sampling)? \_\_\_\_\_

Expiration date of colorimeter gel standards? \_\_\_\_\_

Frequency of monitoring satisfactory?  Yes  No

Free chlorine residual measured and reported?  Yes  No

Calibration Checks performed?  Yes  No

If yes,

Are results of calibration checks within the larger of +/- 0.1 mg/l or +/- 15%?  Yes  No

Are emergency calibration checks performed as soon as possible when an on-line chlorine analyzer indicates a large ( $\geq 50\%$ ) unexpected change in chlorine residual concentration?

Yes  No  NA

Are records of calibration recorded and maintained for 3 years?  Yes  No

Do all chemical reagents and standards for on-line analyzers and grab sample methods have an unexpired shelf life?  Yes  No

Chlorine residual necessary to meet CT requirements? \_\_\_\_\_ mg/l free chlorine

Location of measurement? \_\_\_\_\_

Staff aware of the required minimum residual?  Yes  No

Is this concentration being continuously met?  Yes  No

If No, is staff checking other parameters/taking appropriate steps to ensure CT requirements are being met on continuous basis?  Yes  No  NA

10. Are adequate LAB EQUIPMENT AND REAGENTS available to run necessary operational tests?

Yes  No

Are reagents dated?  Yes  No

Are test procedures appropriate?  Yes  No

Are desk-top units calibrated at appropriate intervals?  Yes  No

Does plant have LABORATORY CAPABILITY for:

Algae counts and identification?  Yes  No

Threshold odor determinations?  Yes  No

Iron and manganese analyses?  Yes  No

Overall appearance of laboratory?  satisfactory  needs attention

11. FLUORIDE test utilized? \_\_\_\_\_

Equipment in good condition?  Yes  No  NA

Standards up-to-date?  Yes  No  NA

Is a continuous analyzer provided?  Yes  No  NA

Do continuous analyzer reading correspond to test kit readings?  Yes  No  NA

Frequency of continuous monitoring unit calibration? \_\_\_\_\_

12. Is CONTINUOUS pH monitoring equipment provided and in good condition? Yes No NA  
Do continuous monitor readings correspond to desk-top readings? Yes No NA  
Frequency of continuous monitoring unit calibration? \_\_\_\_\_
13. Adequate BACKFLOW PREVENTION devices at sinks, etc.? Yes No  
Frequency of RPZ testing? \_\_\_\_\_; Date of last test? \_\_\_\_\_

T. WASTE HANDLING

1. Filter backwash, rewash, and settling basin wastewaters discharged to:

lagoons       holding tank/sand beds       other \_\_\_\_\_

2. Ultimate discharge of waste flows? \_\_\_\_\_

3. Provisions for water recycle to head of plant?       Yes     No

4. Is FILTER BACKWASH RECYCLE practiced?       Yes     No     NA

    Is recycle stream monitored for flow?       Yes     No\*     NA

    Is recycle stream monitored for quality parameters?       Yes     No\*     NA

\*Recycled filter backwash that is not measured is a Significant Deficiency.

Recycle Flowrate (total range)? \_\_\_\_\_

% of Raw Water Flow (should be < 10%)? \_\_\_\_\_

Is approved treatment provided for recycle flows?       Yes     No\*     NA

If Yes, Describe: \_\_\_\_\_ \*

Recycled flow should be returned to the plant headworks. If additional approved treatment is not in service, it is a Significant Deficiency.

VDH approval date? \_\_\_\_\_

5. Are floor drains in chemical storage and feed areas separated from waste flow streams?

Yes     No     NA

COMMENTS:

U. EMERGENCY POWER

- Portable generator connection(s). Identify generator supplier? \_\_\_\_\_
- Permanent equipment installed
- No Provisions

*Use remaining table for permanent installations only:*

Fuel?  Diesel gasoline  Propane gas  Natural gas

Generator Rating? \_\_\_\_\_ kWh

- % of Total Power Demand met? \_\_\_\_\_ %
- Describe water production capability & critical elements supplied: \_\_\_\_\_

Power transfer switch?  Manual  Automatic

If auto switch provided, does operator know how to manually switch power source?  Yes  No  N/A

Fuel Supply: Level? \_\_\_\_\_ %

Fuel Supply: Approx. Duration? \_\_\_\_\_ hrs

Diesel Gasoline Fuel Tanks:

- Fuel tank a minimum of 50 feet from any well or 100 feet from intake?  Yes  No
- Containment provided for fuel tank?  Yes  No
- Leak detection provided?  Yes  No
- Fuel tank double walled?  Yes  No
- Refueling protected from spills?  Yes  No
- Evidence of fuel leaks?  Yes  No

How often is the Emergency Power exercised? \_\_\_\_\_

Duration? \_\_\_\_\_

How often is the transfer switch exercised? \_\_\_\_\_

Duration? \_\_\_\_\_

Maintenance records of engine and generators kept?  Yes  No

Maintenance records reviewed during inspection?

- Adequate?

- Yes  No  
 Yes  No  N/A  
 Yes  No  N/A

General Condition?  Good  Fair  Poor

Comments:

V. ULTRAVIOLET (UV) DISINFECTION

1. UV Units

Type of Units?  Low Pressure     Medium Pressure  
 Control Strategy?  Calculated Dose Control;     UV Intensity Set Point Control  
 No. of UV Reactors? \_\_\_\_\_ No. of UV Reactors in Operation? \_\_\_\_\_  
 Reactor Arrangement?  Series     Parallel  
 No. of Bulbs/Reactor? \_\_\_\_\_ No. of Bulbs in Operation? \_\_\_\_\_  
 Design Capacity of each Reactor? \_\_\_\_\_ MGD Total System Design Capacity? \_\_\_\_\_ MGD

Observed Reactor # 1 Flow (MGD)	Observed Reactor # 2 Flow (MGD)	Observed Reactor # 3 Flow (MGD)

2. UV Reactor Appurtenances (operable and in good operating condition)

Upstream and Downstream Isolation Valves/Reactor?  Yes  No  
 Feed Pumps?  Yes  No  NA  
 Flow Meter/Reactor?  Yes  No  NA  
 High Flow/Reactor Alarm?  Yes  No  NA  
 Air Release and Vacuum Relief Valves Provided?  Yes  No  
 Sample Taps (Upstream/Downstream each Reactor)?  Yes  No  NA  
 Drains at each reactor?  Yes  No  
 Safety Glasses with UV protection Available?  Yes  No  
 Automatic Lamp Cleaning System Operational?  Yes  No  NA  
 Lamp Chemical Cleaning solutions meet NSF 60?  Yes  No  NA  
 Water Level Sensor with Automatic Reactor Shutoff Operational?  Yes  No  
 Lamp/Lamp Ballast Failure Sensor with Automatic Reactor Shutoff Operational?  Yes  No  
 High Temperature Sensor with Automatic Reactor Shutoff Operational?  Yes  No  
 Bench UV Spectrophotometer Operational?  Yes  No  NA  
 Adequate Spare Parts Inventory?  Yes  No  NA

3. No. of Inline UV Intensity Sensors? \_\_\_\_\_ No. in Operation? \_\_\_\_\_  NA

UV Intensity Reading - Reactor #1? \_\_\_\_\_ W/m<sup>2</sup>  
 UV Intensity Reading - Reactor #2? \_\_\_\_\_ W/m<sup>2</sup>  
 Required UV Intensity for Disinfection Credits? \_\_\_\_\_ W/m<sup>2</sup>  
 Low UV Intensity Alarm Set Point? \_\_\_\_\_ W/m<sup>2</sup>  
 UV Intensity Alarm(s) Operational For Reactors In Service?  Yes  No  
 Dates Inline Sensors Last Calibrated (Required monthly)? Sensor #1? \_\_\_\_\_ Sensor #2? \_\_\_\_\_  
 Reference Sensor Provided/Operational?  Yes  No No. provided? \_\_\_\_\_  
 Date(s) when Reference Sensor(s) Last Calibrated? \_\_\_\_\_  
 UV Intensity Sensor Recorder(s) Operable?  Yes  No

4. No. of Inline UV Transmittance (UVT) Analyzers? \_\_\_\_\_ No. in Operation? \_\_\_\_\_  NA

UVT Reading – Reactor #1: \_\_\_\_\_ %    Calculated Dose: \_\_\_\_\_ mJ/cm<sup>2</sup>  
 UVT Reading – Reactor #2: \_\_\_\_\_ %    Calculated Dose: \_\_\_\_\_ mJ/cm<sup>2</sup>  
 Low UVT Alarm Set Point: \_\_\_\_\_ %



UVT Alarm(s) Operational For Reactors In Service?  Yes  No

Required Dose/Reactor for Disinfection Credits? \_\_\_\_\_ mJ/cm<sup>2</sup>

Low Calculated Dose Alarm Set Point? \_\_\_\_\_ mJ/cm<sup>2</sup>

UV Calculated Dose Alarm(s) Operational For Reactors In Service?  Yes  No

Date(s) UVT Analyzers Calibrated with Bench Spectrophotometer? \_\_\_\_\_ (Required Weekly)

Date UV Spectrophotometer last calibrated? \_\_\_\_\_ Meets manufacturer-specified interval?

Yes  No

UVT Analyzer Recorder(s) Operable?  Yes  No

## W. GRANULAR ACTIVATED CARBON (GAC) CONTACTORS

**Note to Evaluator:** Refer to AWWA B604 - *Granular Activated Carbon* for more detailed configuration, testing, handling, and disposal guidelines.

1. Specific contaminants targeted for removal by carbon? Yes No
2. Operator is aware of the purpose of treatment? Yes No
3. Cumulative flow through carbon is logged? Yes No
4. Cumulative flow since last change-out < change-out interval practiced during initial testing? Yes No
5. Operations/Management staff aware of carbon change-out interval (should be cumulative flow, not time)? Yes No
6. Current flow rate through carbon  $\leq$  flow rate during initial testing. (Reduced EBCT may allow breakthrough of less readily-adsorbed contaminants)? Yes No
7. Water system is testing treated water quality to confirm effectiveness of GAC?
  - a. Results of most recent laboratory testing satisfactory? Yes No
  - b. Date of last testing/Testing frequency is satisfactory? \_\_\_\_\_
8. Raw testing indicates that there is no significant increase of contaminants over conditions during initial testing (otherwise need to increase finished/post-first stage monitoring and possibly change-out frequency)? Yes No
9. Head loss across filter is satisfactory (if high may trigger backwash, high head loss breaks up carbon)? Yes No
10. Backwash frequency and procedure is satisfactory (operator should check backwash wastewater for media)? Yes No
11. Date of last media level check/frequency? \_\_\_\_\_
12. Carbon depth is adequate (shouldn't be significantly < during initial testing; carbon can be lost during backwash)? Yes No
13. GAC Media NSF-61 certified, meets AWWA B604? Yes No
14. Suitable storage for replacement carbon if onsite (dry, no source of ignition, no strong oxidants)? Yes No
15. Equipment configuration adequate (sample taps, means of controlling backwash process, air release)? Yes No
16. Equipment condition adequate? Yes No
17. Proper disposal of spent carbon? Yes No

Comments:

X. VIRGINIA OPTIMIZATION PROGRAM REVIEW <sup>2</sup>

Virginia Optimization Program Goal	Filter-months met in past 12 months from <u>MM/20XX</u> to <u>MM/20XX</u>	Filter-months met in preceding 12 months from <u>MM/20XX</u> to <u>MM/20XX</u>	Improvement Shown?
Clarified Water Turbidity (use clarifier-months rather than filter-months) $\leq 1.0$ NTU when monthly average raw water turbidity $\leq 10.0$ NTU $\leq 2.0$ NTU when monthly average raw water turbidity $> 10.0$ NTU	A	B	C
Filtered Water Turbidity $\leq 0.3$ NTU in 100% of filtered water readings	D	E	F
Filtered Water Turbidity $\leq 0.1$ NTU in 95% of filtered water readings	G	H	I
Filtered Water Turbidity $\leq 0.1$ NTU when filter returned to service after each backwash	J	K	L
Filtered Water Turbidity peak $\leq 0.3$ NTU in backwash recovery period for each backwash	M	N	O
Length of backwash recovery period $\leq 15$ minutes for each backwash	P	Q	R

COMMENTS:

<sup>2</sup> Discuss VOP performance summary with operator during sanitary survey. Complete table in accordance with following instructions prior to Sanitary Survey or use R&R Report.

## Instructions

### Box A:

- The ‘time frame’ is the 12 months preceding the month the inspection is conducted (example inspection in April 2011-preceding 12 months are April 2010 to March 2011).
- ‘Filter – months’ is the number of sedimentation basins the plant has in operation each month that meets the raw water turbidity criteria for that month totalized for the 12 month time frame.

Examples:

- WTP has two sedimentation basins and both in service every month and both meet the “ $\leq 1.0$  NTU when monthly average raw water turbidity  $\leq 10.0$  NTU” criteria all 12 months; data entered is 24 of 24.
- WTP has three sedimentation basins and all three in service every month; 2 months the criteria is “ $\leq 1.0$  NTU when monthly average raw water turbidity  $\leq 10.0$  NTU” and 10 months the criteria is “ $\leq 2.0$  NTU when monthly average raw water turbidity  $> 10.0$  NTU”. The total number of filter- months is 36 – 6 months of  $\leq 1.0$  NTU and 30 months of  $\leq 2.0$  NTU. However, none of the basins for the  $\leq 1.0$  NTU months met the criteria but all the basins met the criteria for all the  $\leq 2.0$  NTU months; data entered is 30 of 36.

Box B – Same as Box A regarding evaluation of data but the date range evaluated is the 13<sup>th</sup> to 24<sup>th</sup> month preceding the month the inspection is performed (example inspection in April 2011-preceding 13<sup>th</sup> to 24<sup>th</sup> months are April 2009 to March 2010).

Box C – Answer ‘yes’ or ‘no’ or ‘N/A’ as to whether or not the number of filter-months achieving performance goal in Box A is greater than Box B.

### Box D:

- The ‘time frame’ is the 12 months preceding the month the inspection is conducted (example inspection in April 2011-preceding 12 months are April 2010 to March 2011).
- ‘Filter – months’ is the number of filters the plant has in operation each month that meets the individual Filtered Water Turbidity  $\leq 0.3$  NTU in 100% of turbidimeter determinations performance goal for that month totalized for the 12 month time frame. Examples:

- WTP has two filters and both in service every month and both meet the Filtered Water Turbidity  $\leq 0.3$  NTU in 100% of turbidimeter determinations performance goal all 12 months; data entered is 24 of 24.
- WTP has three filters and all three in service every month; 2 filters met the goal for 12 months and 1 filter met the goal for 11 months; data entered is 35 of 36.
- WTP has three filters; 2 in service every month and 1 in service 10 months; the total filter months is 34; all filters met the goal each month; data entered is 34 of 34

Box E - Same as Box D regarding evaluation of data but the date range evaluated is the 13<sup>th</sup> to 24<sup>th</sup> month preceding the month the inspection is performed (example inspection in April 2011-preceding 13<sup>th</sup> to 24<sup>th</sup> months are April 2009 to March 2010).

Box F - Answer ‘yes’ or ‘no’ or ‘N/A’ as to whether or not the number of filter-months achieving performance goal in Box D is greater than Box E.

Box G - The ‘time frame’ is the 12 months preceding the month the inspection is conducted and the ‘Filter – months’ is the number of filters the plant has in operation each month that meets the individual Filtered Water Turbidity  $\leq 0.1$  NTU in 95% of turbidimeter determinations performance goal for that month totalized for the 12 month time frame.

Box H - Same as Box G regarding evaluation of data but the date range evaluated is the 13<sup>th</sup> to 24<sup>th</sup> month preceding the month the inspection is performed.

Box I - Answer ‘yes’ or ‘no’ or ‘N/A’ as to whether or not the number of filter-months achieving performance goal in Box G is greater than Box H

The remaining Boxes (J through R) follow the same pattern for filters as Boxes D through I but for different performance goals.

Virginia Optimization Program Goal	Why is the VOP goal not met in each clarifier-month or filter-month? What are the operator’s plans to improve WTP performance?
Clarified Water Turbidity (use clarifier-months rather than filter-months) $\leq 1.0$ NTU when monthly average raw water turbidity $\leq 10.0$ NTU $\leq 2.0$ NTU when monthly average raw water turbidity $> 10.0$ NTU	Typically meeting goals – did not meet during 1 month of previous 12 months (February 2009 – 92.54% of samples were $\leq 1.0$ NTU with an average raw turbidity of 8 NTU). Severe storms pushed the raw water turbidity much higher than normal for four days resulting in not meeting the $\leq 1.0$ NTU goal. The goal was achieved the 3 <sup>rd</sup> and 4 <sup>th</sup> day of the event. Recommend the operator on duty during the first two days of the event be better trained to handle the extreme turbidity spike.
Filtered Water Turbidity $\leq 0.3$ NTU in 100% of filtered water readings  AND  Filtered Water Turbidity $\leq 0.1$ NTU in 95% of filtered water readings	N/A – Meeting goals
Filtered Water Turbidity $\leq 0.1$ NTU when filter returned to service after each backwash	The rewash filtering rate of flow is unknown. The diameter of the rewash and filter rate of flow control valve is the same as are the associated pipe diameters. The rewash valve is a manually operated gate valve on stem extending up through the floor to the filter room. The operators fully open the rewash valve during rewash at all times – Recommend operator perform filter drop tests to determine the number of valve turns it takes to match the filter rewash rate to the filtration rate.
Filtered Water Turbidity peak $\leq 0.3$ NTU in backwash recovery period for each backwash	N/A – Meeting goals
Length of backwash recovery period $\leq 15$ minutes for each backwash	N/A – Meeting goals

Instructions

This area is a discussion of operator’s diagnosis of shortcomings, and plans to improve facility performance. The inspecting engineer may find that the operator has no diagnosis or plan. In this case, the engineer should enter his assessment of why the goal was not met and state his recommendation for a change that may result in meeting the goal. The below table has examples of possible entries by the inspecting engineer; do not assume these examples are for the same WTP.

**Jar Test Results**  
(Optional)

Plant: \_\_\_\_\_

Date: \_\_\_\_\_

Performed By: \_\_\_\_\_

Raw Water Characteristics:

pH \_\_\_\_\_  
 Temperature \_\_\_\_\_ °F  
 Turbidity \_\_\_\_\_ NTU (Turb.)  
 Alkalinity \_\_\_\_\_ (mg/L as CaCO<sub>3</sub>) (Alk.)  
 Total Hardness \_\_\_\_\_ (mg/L as CaCO<sub>3</sub>) (TH)

Jar No.	Coag. Dose (mg/L)	Alk. Adj. (mg/L)	Floc Forming	Floc Settling Charac.	Settled pH	Settled Alk.	Settled TH	Settled Turb.
1								
2								
3								
4								
5								
6								

Coagulant Used: \_\_\_\_\_ Alkalinity Adjustment: \_\_\_\_\_

\_\_\_\_\_ RPM for \_\_\_\_\_ minutes; \_\_\_\_\_ RPM for \_\_\_\_\_ minutes;  
 Settling Time: \_\_\_\_\_ minutes

**Filter Drop Test Worksheet**  
(Optional)

Plant: \_\_\_\_\_

Date: \_\_\_\_\_

Inspected By: \_\_\_\_\_

No. of Filters: \_\_\_\_\_

Filter Box Area: \_\_\_\_\_

Gullet Area: \_\_\_\_\_

Effective Filter Surface Area: \_\_\_\_\_

Volume Filtered: \_\_\_\_\_

Filter No.	Time For 6" Drop	Calc. Filter Rate	Indicated Filter Rate	Head Loss Indicated	Head Loss Measured

**PART IIB**  
**RAW WATER SOURCE**

(Shading Identifies a Potential Significant Deficiency)

A. RAW WATER INTAKE / SURFACE SOURCE EVALUATION

Source Name: \_\_\_\_\_

1. Intake located on? stream/free flowing river reservoir
2. Observed (visible) water quality? clear turbid colored \_\_\_\_\_  
other\_\_\_\_\_
3. Conditions (Activities or pollution sources) in the immediate intake area that represent a potential health risk? Yes No  
Describe:\_\_\_\_\_
4. Observed conditions of surrounding area? Describe:\_\_\_\_\_
5. Reservoir level/stream flow? normal high low
6. For in-stream intake:  
Check dam provided? Yes No  
Condition of check dam? \_\_\_\_\_  
Stream flow monitoring provided? Yes No
7. Condition of intake structure? \_\_\_\_\_  
Screen provided? manual mechanical none  
Condition of screen? good average poor  
Number of intake levels provided?\_\_\_\_\_ depths:\_\_\_\_\_  
Drawoff depth/level being used? \_\_\_\_\_  
Access provided to intake structure? \_\_\_\_\_  
Method of cleaning screen? \_\_\_\_\_  
Is it operable/used? \_\_\_\_\_
8. Raw water pumps:  
Number provided? \_\_\_\_\_ Number operable? \_\_\_\_\_  
Number in use? \_\_\_\_\_ Pumping rate? \_\_\_\_\_  
Pump station subject to flooding? Yes No  
Protected against trespassing/vandalism? Yes No  
Access to pump station? \_\_\_\_\_  
When were pumps/valves last maintained/checked? \_\_\_\_\_



**FM-C1-Attachment 8. SW System-Intake-Pumping-SWAP-Part IIB.**

9. Treatment provided at intake (describe): \_\_\_\_\_  
\_\_\_\_\_

10. Physical condition of intake?      satisfactory    needs attention

11. Capacity Evaluation:

Intake components restrict ability of the waterworks to meet present demand?      Yes    No

Present water demand exceeds source safe yield?      Yes    No

Safe Yield? \_\_\_\_\_      Determination Date? \_\_\_\_\_

Present demand exceeds raw water pumping capacity?      Yes    No

Comments:

**FM-C1-Attachment 8. SW System-Intake-Pumping-SWAP-Part IIB.**

**B. SPRING / SPRING ENCLOSURE / PUMP FACILITIES**

**1. SPRING**

Construction Sufficient to Prevent Contamination?  Yes  No

Protected From Flooding?  Yes  No

Spring Overflow Screened?  Yes  No

Cross Connections present?  Yes  No

**2. LOT**

All-Weather Access?  Yes  No

Clean/Uncluttered?  Yes  No

Improper Storage of Contaminants?  Yes  No

Fenced?  Yes  No

Locked?

**3. SPRING ENCLOSURE**

Electrical Wiring?  satisfactory  needs attention

Lighting?  satisfactory  needs attention

Heating?  satisfactory  needs attention

**4. PUMPS & APPURTENANCES PRESENT & OPERABLE**

Entry Point Tap?  Yes  No

Raw Water Sampling Tap?  Yes  No

Discharge Check Valve?  Yes  No

Discharge Shut-Off Valve?  Yes  No

Valve Discharge to Waste?  Yes  No

Operable Water Meter?  Yes  No

Observed Pumping Rate (gpm)? \_\_\_\_\_ Discharge Head (psi)? \_\_\_\_\_

Pump(s) Controlled By? \_\_\_\_\_

COMMENTS/FIELD TEST RESULTS:

**FM-C1-Attachment 8. SW System-Intake-Pumping-SWAP-Part IIB.**

**C. SOURCE WATER ASSESSMENT/PROTECTION**

1. List land use activities of concern found but not listed in Zone 1 for the original source water assessment.

LUA TYPE	RISK	NAME OF PROPERTY OWNER	OWNER ADDRESS	LATITUDE/LONGITUDE

2. Source Water Protection:

Does the waterworks have a written source water protection plan?  Yes  No

If "Yes":

Has the source water protection plan been submitted for review?  Yes  No

When was the last evaluation performed? \_\_\_\_\_

Has there been sufficient additional development in the watershed to warrant a revised source water protection plan?  Yes  No

Discuss:

If "No":

Has a schedule been established to develop a plan?  Yes  No

What is nature of watershed?

agricultural  industrial  forested  residential

How is the watershed controlled/protected?

ordinances  owned by waterworks  zoning  other \_\_\_\_\_

What is size of the watershed? \_\_\_\_\_

Percent of watershed protected/controlled? \_\_\_\_\_%

Any sources of pollution in proximity of intakes? \_\_\_\_\_

Discuss:

3. Does waterworks have a spill response plan?  Yes  No

Has it been tested?  Yes  No

4. Has there been a contamination event since last survey?  Yes  No

Date of evaluation? \_\_\_\_\_

If "Yes", discuss (source, materials and quantities involved, effects on plan and distribution system, etc.): \_\_\_\_\_

Comments:

**PART II -C**  
**DISTRIBUTION SYSTEM, CROSS-CONNECTION CONTROL, STORAGE,**  
**PUMPING, METER & VALVE VAULTS**

(Shading Identifies a Potential Significant Deficiency)

A. DISTRIBUTION SYSTEM EVALUATION

1. Distribution System Survey:

a. Map of distribution system available?  Yes  No  
Frequency of map updates? \_\_\_\_\_

b. Materials used?  
 ductile iron       cast iron       asbestos cement       galvanized  
 PVC       HDPE       other \_\_\_\_\_

Valve guide available?  Yes  No

2. Water audit conducted?  Yes  No

Accountability determined?  Yes  No

If Yes, \_\_\_\_\_% accountability

Leakage rates >30% (poses unacceptable risk of back siphonage)?  Yes  No

Discuss problem(s), resolution: \_\_\_\_\_

Systematic leak detection program?  Yes  No

Systematic leak repair program?  Yes  No

Meter repair program?  Yes  No

Records maintained?  Yes  No

3. Distribution system routinely flushed?  Yes  No

Frequency? \_\_\_\_\_

Records maintained?  Yes  No

4. Fire hydrants operational status checked?  Yes  No

By whom? \_\_\_\_\_

Frequency? \_\_\_\_\_

Records maintained?  Yes  No

Flow tested?  Yes  No

Flow "coded" (NFPA, other)?  Yes  No

5. Valve exercise program:

Valves checked for operability?  Yes  No

Frequency? \_\_\_\_\_

Records maintained?  Yes  No

**FM-C1-Attachment 9. SW System-Distribution System-Part IIC.**

6. Corrosion control program:

Piping conditions examined? Yes No  
Water stability determined? Yes No  
Method? \_\_\_\_\_ Frequency? \_\_\_\_\_  
Other corrosivity/corrosion control tests performed? Yes No  
Method? \_\_\_\_\_ Frequency? \_\_\_\_\_

7. Air/vacuum valves:

Checked for operability? Yes No Frequency? \_\_\_\_\_  
Protected from contamination? Yes No

8. Distribution system problems:

Problems/complaints logged by owner in past year? Yes No  
taste & odor discolored water/sediment in water  
pressure problems (<20 psi) service interruptions  
other \_\_\_\_\_

9. Records kept for three years? Yes No

10. Is rechlorination practiced? Yes No

11. Does waterworks have a General Permit for water line construction? Yes No

If "Yes" expiration date? \_\_\_\_\_  
If "Yes" are annual reports/updated maps being submitted? Yes No

COMMENTS:

**FM-C1-Attachment 9. SW System-Distribution System-Part IIC.**

**B. CROSS CONNECTION CONTROL PROGRAM**

1. Does utility/plant have an approved Cross-Connection Control Program?  Yes  No  
 Date of approval? \_\_\_\_\_  
 Person in responsible charge? \_\_\_\_\_
- a. Annual surveys made (all customers) in accordance with the approved program?  Yes  No
- b. Backflow prevention devices tested in accordance with the approved program?  Yes  No
- c. All booster/jockey/fire pumps in system equipped with low pressure cut-off switches on suction lines?  Yes  No
2. Are inspection/test records maintained?  Yes  No  
 Location? \_\_\_\_\_  
 Records maintained for 10 years?  Yes  No  
 Were records reviewed?  Yes  No  
 Are records satisfactory?  Yes  No

Comments:

**C. METER / VALVE VAULTS(s)**

METER/VALVE VAULT	NAME/LOCATION	NAME/LOCATION
Vault Drain Functioning		
Sample Tap		
Access (Ladder, etc.)		
Locked Access		
Bypass piping		
Pressure gauges (PRV and altitude valve)		
Air/vacuum valve protected from contamination		
<b>Comments:</b>		

**FM-C1-Attachment 9. SW System-Distribution System-Part IIC.**

**D. DISTRIBUTION STORAGE (ATMOSPHERIC TANKS)<sup>1</sup>**

Shading Identifies a Potential Significant Deficiency)

STORAGE TANK	NAME/LOCATION	NAME/LOCATION
WATER QUALITY PROTECTION		
Structure Watertight		
Vent Shielded and Screened		
Drain Satisfactory, Protected		
Tank Overflow		
<ul style="list-style-type: none"> <li>• Screened</li> </ul>		
<ul style="list-style-type: none"> <li>• Air Gap Provided at Outlet</li> </ul>		
<ul style="list-style-type: none"> <li>• Splash Pad /Erosion Protection</li> </ul>		
Roof Hatch Watertight		
Sidewall Access Watertight		
Accesses Locked/Bolted		
Other Tank Openings Curbed, Sleeved, Covered		
Maintenance/Repair Date		
Frequency/Date of Professional Tank Survey (recommend~5 yr)		
Frequency/Date of Routine Tank Survey (recommend ~1 yr)		
Tank(s) Appear Structurally Sound		
Properly modified for Antennae?		
WATER QUALITY MAINTENANCE		
Sample Tap Available		
Frequency Samples Collected		
Floating Debris Observed		
Good Turnover Potential		
Flushed/Cleaned Date		
OPERATION		
Tank Level Controls Operable		
Automatic, Manual or Both		
Tank Level Recorded		
Automatic Recorder Operable		
CORROSION CONTROL		
Routine Interior Inspections Scheduled		
Interior Corrosion Visible		
Exterior Corrosion Visible		
Cathodic Protection Operable		
SAFETY		
Interior/Exterior Ladder Condition		
Interior/Exterior Ladder Guard		
Adequate Railing Available		
Safety Belt Available		
LOT		
Upkeep		
Access Road Maintained		
Surface Water Diverted		
Fence Condition Good		
Access Locked		

<sup>1</sup> Confirm with owner when unable to verify by physical inspection.

**FM-C1-Attachment 9. SW System-Distribution System-Part IIC.**

**E. DISTRIBUTION – PUMP STATION<sup>2</sup> (Shading Identifies a Potential Significant Deficiency)**

PUMP STATION	NAME/LOCATION	NAME/LOCATION
PUMP STATION LOT		
Upkeep Adequate		
Surface Water Diverted Away		
Access Road Maintained		
PUMP STATION BUILDING		
Light Operable		
Ventilation Operable		
Heating Operable		
Pump Gland Piped to Drain		
Concrete Floor		
Screened Floor Drain		
Locked		
Deterioration &/or Damage Evident		
Storage of toxic chemicals		
PUMP STATION OPERATIONS		
No. of Pumps in Operation		
All Pumps Operable		
Pump Controls: Manual / Automatic		
Pump Alternation: Manual / Automatic		
Flow Meter Operable		
Low Pressure Cut-off		
Alarm Operable		
Compound Gauges Operable		
Discharge Gate Valve Present/Operable		
Suction Gate Valve Present/Operable		
Check Valve Present/Operable		
Cross Connections are present		
PUMP MAINTENANCE		
Pump Service Schedule		
Pump Service Recorded		
EMERGENCY POWER AVAILABLE		
HYDROPNEUMATIC TANK	NAME/LOCATION	NAME/LOCATION
Type: Pre-pressurized or Hydro-Pneumatic		
Pressure Gauge / Reading		
Pressurizing System		
Pressure Operating Range		
Sight Glass / Level Indicator		
Drain protected from contamination		
Pressure Relief Valve		
Vacuum Relief Valve		
Air Relief Valve		
Exterior Condition		
Dept. of Labor & Industry Exp. Date (>120 gal)		
Tank Watertight, Structurally Sound		
Flushed/Cleaned Date		

<sup>2</sup> Y = Yes; N = No; NA = Not Applicable; N/I = Not Inspected; None = None; OK = Acceptable



**FM-C1-Attachment 10. SW System-Management-Administration-Part IID.**

**PART IID  
SYSTEM MANAGEMENT AND ADMINISTRATION**

**A. COMMUNICATION & TRAINING**

1. Is the system's management familiar with the system's facilities and their needs?  Yes  No
2. Clear lines of communication established with managers, plant and system operators?  Yes  No
3. Operational policies clear and communicated/made available to operating staff?  Yes  No
4. Good communication between the Designated Operator and other operating staff (particularly shift supervision)?  Yes  No
5. Are personnel adequately trained?  Yes  No
6. Is there an active, on-going staff training program, either in-house or outside?  Yes  No

**B. STAFFING**

7. Are sufficient staff (plant, system, and laboratory) provided?  Yes  No
8. Will system be adequately staffed in case of illness or vacation?  Yes  No
9. Are there problems with personnel turnover?  Yes  No

**C. OPERATON & MAINTENANCE**

10. Are shift supervisors held responsible for all decisions made while on duty?  Yes  No
11. Does Designated Operator and shift supervisors have 24-hour access to management staff capable of authorizing emergency expenditures?  Yes  No
12. Are preventative maintenance tasks scheduled and performed?  Yes  No
13. Has an Operations & Maintenance Manual been prepared for the plant and system?  Yes  No
14. Is there an established safety program?  
Is the manual kept up-to-date?  Yes  No

**D. PLANNING & BUDGETS**

15. Does management have plans for addressing system growth or regulatory requirements for improvements?  Yes  No
16. Has an Asset Management Plan been developed?  Yes  No
17. Are sufficient funds allocated for system maintenance and upkeep?  Yes  No
18. Is a reserve fund established to cover necessary replacements or Capital Improvements?  Yes  No
19. Are new connections to the system notified of current or unresolved problems?  Yes  No
20. Has an emergency response plan been established for the entire waterworks?  
Has the plan been tested?  Yes  No  
Is the plan routinely updated?  Yes  No

**FM-C1-Attachment 10. SW System-Management-Administration-Part IID.**

Is an emergency power generator capable of powering 100% plant?

Yes  No

Are the pump stations equipped with emergency power?

Yes  No

COMMENTS:

**VIRGINIA DEPARTMENT OF HEALTH  
OFFICE OF DRINKING WATER  
CONSECUTIVE SYSTEM SANITARY SURVEY REPORT**

SUBJECT:  
WATERWORKS:  
PWSID:

**PART I - SYSTEM BACKGROUND**  
**GENERAL INFORMATION**

Owner Name:	Waterworks Class:
Type of Waterworks:	
Contact Name:	
Contact Address:	
Contact Phone Number:	
Wholesaler:	

D.O. License Class:	D.O. Has Required License:
D.O. Legal Name:	License No./Exp. Date:

Inspection By:	Inspection Date:
Time Spent:	Last Inspection Date:
Date to Reviewer:	Reviewed by/Date:
Date to Reviewer:	Reviewed by/Date:
Inspection Type:	
Present at Inspection:	
Facilities Inspected:	

Operation Permit Effective Date:	Waterworks Description Sheet Date:
Permit Up-to-Date?	Description Sheet Up-to-Date?
No. Connections:	Population Served:
Avg. Daily Production:	Operation Permit Capacity:
Exceeds 80% Operation Permit Capacity? (max. 3 consecutive months): If yes, explain:	
Treatment Provided:	
SDWIS Inventory Information Current:	

Comments:
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### COMPLIANCE HISTORY

Shaded Boxes	Indicate a potential Significant Deficiency
<b>REVISED TOTAL COLIFORM &amp; GROUNDWATER RULES</b>	
<ul style="list-style-type: none"> <li>• BSSP Approved:</li> </ul>	(Yes/No)      (Date)
<ul style="list-style-type: none"> <li>• # of routine samples/monitoring period &amp; frequency</li> </ul>	
<ul style="list-style-type: none"> <li>• Is plan current &amp; appropriate for distribution system &amp; population?</li> </ul>	
<ul style="list-style-type: none"> <li>• Is monitoring frequency correct?</li> </ul>	
<ul style="list-style-type: none"> <li>• Rotates and uses approved sites?</li> </ul>	
<ul style="list-style-type: none"> <li>• Measures chlorine residual for all samples, if chlorine is added?</li> </ul>	
<ul style="list-style-type: none"> <li>• RTCR Level 1 or 2 Assessments since last Survey?</li> </ul>	
<ul style="list-style-type: none"> <li>• Disinfection required? (adequate contact time)</li> </ul>	
<ul style="list-style-type: none"> <li>• 4-Log virus inactivation required?</li> </ul>	
<ul style="list-style-type: none"> <li>• 4-Log virus inactivation provided?</li> </ul>	
<ul style="list-style-type: none"> <li>• On-line chlorine analyzers required for chlorine residual?</li> </ul>	
<ul style="list-style-type: none"> <li>• Procedure for wholesaler notification of TC + results (groundwater purchasers only)?</li> </ul>	
<b>DDBP RULES (Community &amp; NTNC, Disinfectant Used)</b>	
<ul style="list-style-type: none"> <li>• Monitoring Plan approved and current?</li> </ul>	(Yes/No)      (Date)
<ul style="list-style-type: none"> <li>• Monitoring frequency required?</li> </ul>	
<ul style="list-style-type: none"> <li>• Operational Evaluation Level exceeded?</li> </ul>	
<b>CONSUMER CONFIDENCE REPORTS (Community only)</b>	
<ul style="list-style-type: none"> <li>• Final report issued by deadline?</li> </ul>	
<ul style="list-style-type: none"> <li>• Certification Statement Received?</li> </ul>	
<b>LEAD &amp; COPPER RULES (Community &amp; NTNC)</b>	
<ul style="list-style-type: none"> <li>• Materials Survey/ Sampling Plan Approved?</li> </ul>	(Yes/No)      (Date)
<ul style="list-style-type: none"> <li>• Water Quality Parameter (WQP) routine monitoring required? (Mandatory for &gt; 50,000 population)                             <ul style="list-style-type: none"> <li>○ If yes, WQPs meet quality and frequency requirements?</li> </ul> </li> </ul>	
<ul style="list-style-type: none"> <li>• Have Action Levels (90%) been exceeded in past?                             <ul style="list-style-type: none"> <li>○ If so, when?</li> </ul> </li> </ul>	
<ul style="list-style-type: none"> <li>• Public Education requirements met if required?</li> </ul>	
<ul style="list-style-type: none"> <li>• Optimized Corrosion Control Treatment (OCCT) required?                             <ul style="list-style-type: none"> <li>○ If “Yes”, is Operational Control Monitoring performed and acceptable?</li> </ul> </li> </ul>	
<ul style="list-style-type: none"> <li>• All consumer notice requirements met?</li> </ul>	
Comments:	

Y = Yes; N = No; NA = Not Applicable; N/I = Not Inspected; None = None; OK = Acceptable

<b>CROSS-CONNECTION CONTROL PROGRAM</b>		
• Approved?	(Yes/No)	(Date)
• Inspected Records This Visit?		
○ Program Active?		
○ Satisfactory?		
<b>(MONTHLY) OPERATION REPORTS</b>		
• All submitted for past 12 months?		
• Appropriate operational treatment parameter monitoring?		
• All required information/analyses reported?		
<b>EMERGENCY MGMT. PLAN for Extended Power Outage (Community only)</b>		
• Verification received?	(Yes/No)	(Date)
• Current?		
<b>ASSET MANAGEMENT (recommendation)</b>		
• Written Plan Developed?		
• Routine Maintenance Performed?		
<b>ENFORCEMENT</b>		
• Administrative Order in Effect?	(Yes/No)	(Date)
• Violations / Enforcement Actions Since Last Survey?		
• Owner issued Public Notice as required?		
• Active Corrective Action Plan?	(Yes/No)	(Date)
○ If “Yes”, is waterworks on schedule?		
• SDWIS Violation & Enforcement Action, Public Notification data current?		
<b>COMPLAINTS SINCE LAST INSPECTION:</b>		
• If yes, summarize:		
Comments:		

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**MONITORING HISTORY**

Insert R&R report - Next Chemical Sample Due. ~~See WM 851, Attachment G for instructions.~~

If field notes are sent with the owner’s report, the Next Chemical Sample Due report does not need to be included in both this section and the owner’s report.

**PART II - SYSTEM SURVEY INFORMATION (Field Notes)**

Shaded Boxes Indicate a potential Significant Deficiency

- A. DISTRIBUTION SYSTEM EVALUATION
- B. STORAGE – ATMOSPHERIC TANK(S)
- C. BOOSTER PUMP STATION(S)
- D. STORAGE – PNEUMATIC TANK(S)
- E. METER & VALVE VAULT(S)
- F. RE-CHLORINATION STATION(S)
- G. CONTINUOUS CHLORINE ANALYSIS

It is not necessary to include this page in a completed Sanitary Survey Report

<b>A. DISTRIBUTION SYSTEM EVALUATION</b>	
Pipe Material(s):	
Individual Service Meters provided?	
○ If yes, routine calibration & replacement program in effect?	
Flushing Provisions (hydrants, blow-offs, etc.) available?	
Routine Flushing Program in practice?	
○ If yes, describe:	
Isolation valves exercised?	
○ If yes, describe:	
Air/vacuum relief valves checked for operability?	
○ If yes, describe:	
Pressure monitoring of distribution system?	
○ If yes, describe:	
Adequate Pressure Maintained Throughout? (>20 psi @ peak flow)	
Problems/Complaints in past year? <input type="checkbox"/> taste & odor <input type="checkbox"/> pressure <input type="checkbox"/> turbidity/sediment <input type="checkbox"/> color <input type="checkbox"/> service interruptions <input type="checkbox"/> other Describe:	
Pipe Repair - proper disinfection/sampling procedures used?	
Re-chlorination practiced? (If yes, see separate Re-Chlorination table in this report.)	
<b>FIRE PROTECTION PROVIDED?</b>	
How often are Fire Flow Tests conducted (with fire dept.)?	
How often are hydrants checked for operability?	
Are fire hydrants coded to indicate maximum available fire flow?	
○ If yes, is operator familiar with fire hydrant code index?	
Are operators familiar with tank levels necessary to provide target fire flow for target duration?	
Does waterworks have routine procedures for contacting local fire department(s) to verify available fire flow and duration?	
<b>MANAGEMENT</b>	
Plans/Sketches/Maps with valve & master meter locations?	
Records maintained (should be kept for 3 years minimum)? <input type="checkbox"/> Repairs <input type="checkbox"/> Flushing <input type="checkbox"/> Hydrant Testing <input type="checkbox"/> Fire Flow Tests <input type="checkbox"/> Water Audits <input type="checkbox"/> Complaints	
How often are Water Audits conducted?	
Leakage rates > 30%? Explain:	
Comments:	

Y = Yes; N = No; NA = Not Applicable; N/I = Not Inspected; None = None; OK = Acceptable

<b>B. STORAGE - ATMOSPHERIC TANK(S)</b>	<i>NAME/LOCATION Tank Volume</i>	<i>NAME/LOCATION Tank Volume</i>
<b>WATER QUALITY PROTECTION</b>		
Structure Watertight		
Vent Shielded and Screened		
Drain Satisfactory, Protected		
Tank Overflow		
• Screened		
• Air Gap Provided at Outlet		
• Splash pad / Erosion Protection		
Roof Hatch Watertight		
Sidewall Access Watertight		
Accesses Locked/Bolted		
Other Tank Openings Curbed and Sleeved		
Other Tank Openings Covered		
Maintenance/Repair Date		
Frequency/Date of Professional Tank Survey (recommended ~5 year). Explain.		
Frequency/Date of Routine Tank Survey (recommended ~1 year). Explain.		
Tank(s) Appear Structurally Sound		
Properly modified for Antennae?		
<b>WATER QUALITY MAINTENANCE</b>		
Sample Tap Available		
Frequency Tank Samples Collected		
Floating Debris Observed		
Good Turnover Potential		
Flushed/Cleaned Date		
<b>OPERATION</b>		
Tank Level Controls Operable		
Automatic or Manual		
Tank Level Recorded		
Automatic Recorder Operable		
<b>CORROSION CONTROL</b>		
Routine Interior Inspections Scheduled		
Interior Corrosion Visible		
Exterior Corrosion Visible		
Cathodic Protection Operable		
<b>SAFETY</b>		
Interior/Exterior Ladder Condition		
Interior/Exterior Ladder Guard		
Adequate Railing Available		
Safety Belt Available		
<b>LOT</b>		
Upkeep		
Access Road Maintained		
Surface Water Diverted		
Fence Condition Good		
Access Locked		
Comments:		



<b>C. BOOSTER PUMP STATION(S)</b>	<i>NAME/LOCATION</i>	<i>NAME/LOCATION</i>
<b>PUMP STATION LOT</b>		
Upkeep Adequate		
Surface Water Diverted Away		
Access Road Maintained		
<b>PUMP STATION BUILDING</b>		
Light Operable		
Ventilation Operable		
Heating Operable		
Pump Gland Piped to Drain		
Concrete Floor		
Screened Floor Drain		
Locked		
Deterioration &/or Damage Evident		
Storage of toxic chemicals		
<b>PUMP STATION OPERATIONS</b>		
No. of Pumps In Operation		
All Pumps Operable		
Pump Controls:		
• Automatic		
• Manual		
Pump Alternation:		
• Automatic		
• Manual		
Flow Meter Operable		
Low Pressure Cut-off		
Alarm Operable		
Compound Gauges Operable		
Cross Connections are present		
<b>PUMP MAINTENANCE</b>		
Pump Service Schedule		
Pump Service Recorded		
Discharge Gate Valve		
Suction Gate Valve		
Check Valve		
Comments:		

Y = Yes; N = No; NA = Not Applicable; N/I = Not Inspected; None = None; OK = Acceptable

<b>D. STORAGE - PNEUMATIC TANK(S)</b>	<i><b>NAME/LOCATION</b></i>	<i><b>NAME/LOCATION</b></i>
Type: <i>Pre-Pressurized or Hydro-Pneumatic</i>		
Drain protected from contamination		
Pressure Gauge / Reading		
Pressure Operating Range		
Sight Glass / Level Indicator		
Sample Tap Available		
Pressurizing System		
Vacuum Relief Valve		
Pressure Relief Valve		
Air Relief Valve		
Exterior Condition		
Normal Pump Cycling (not “water logged”)		
Tank Watertight, Structurally Sound		
Flushed/Cleaned Date		
Dept. of Labor & Industry Exp. Date (>120 gal.)		
Comments:		

Y = Yes; N = No; NA = Not Applicable; N/I = Not Inspected; None = None; OK = Acceptable

<b>E. METER AND VALVE VAULT(S)</b>	<i><b>NAME/LOCATION</b></i>	<i><b>NAME/LOCATION</b></i>
Vault Drain Functioning		
Sample Tap		
Access (Ladder, etc.)		
Locked Access		
Bypass piping		
Pressure gauges (PRV and altitude valve)		
Air/vacuum valve protected from contamination		
Comments:		

Y = Yes; N = No; NA = Not Applicable; N/I = Not Inspected; None = None; OK = Acceptable

<b>F. RE-CHLORINATION STATIONS</b>	<i><b>NAME/LOCATION</b></i>	<i><b>NAME/LOCATION</b></i>
Disinfectant		
ANSI Certified / NSF Approved / “GRAS”		
Feeder Condition		
Spare Feeder/Repair Parts		
Safety Features/ Precautions adequate to protect operator and public		
Room Ventilation		
Injection line condition (scale build up, etc.)		
Solution tank condition		
Solution tank covered		
Feeder Activation/Operation		
Weight (gas) or volume/depth (OCl) scale		
Number full cylinders (gas systems)		
Booster Pump(s)		
Residual test equipment		
Free residual, mg/l		
Inspection field test ≈ Monthly Operation Report residuals?		
Comments:		

Y = Yes; N = No; NA = Not Applicable; N/I = Not Inspected; None = None; OK = Acceptable

**VIRGINIA DEPARTMENT OF HEALTH  
OFFICE OF DRINKING WATER  
GROUNDWATER SYSTEM SANITARY SURVEY REPORT  
TRANSIENT NON-COMMUNITY**

SUBJECT:  
WATERWORKS:  
PWSID:

**PART I - SYSTEM BACKGROUND**  
**GENERAL INFORMATION**

Owner Name:	Waterworks Class:
Type of Waterworks: Transient Noncommunity (circle one:) <i>Year round / Seasonal</i>	
Contact Name:	
Contact Address:	
Contact Phone Number:	

D.O. License Class:	D.O. Has Required License:
D.O. Legal Name:	License No./Exp. Date:

Inspection By:	Inspection Date:
Time Spent:	Last Inspection Date:
Date to Reviewer:	Reviewed by/Date:
Date to Reviewer:	Reviewed by/Date:
Inspection Type:	
Present at Inspection:	
Facilities Inspected:	

Operation Permit Effective Date:	Waterworks Description Sheet Date:
Permit Up-to-Date?	Description Sheet Up-to-Date?
No. Connections:	Population Served:
Avg. Daily Production:	Operation Permit Capacity:
Exceeds 80% Operation Permit Capacity? (max. 3 consecutive months): If yes, explain:	
Treatment Provided:	
SDWIS Inventory Information Current:	

Comments:
-----------

### COMPLIANCE HISTORY

Shaded Boxes	Indicate a potential Significant Deficiency	
<b>REVISED TOTAL COLIFORM &amp; GROUNDWATER RULES</b>		
• BSSP Approved?	(Yes/No)	(Date)
• Seasonal Startup Plan Approved?	(Yes/No/NA)	(Date)
• # of routine samples/monitoring period & frequency		
• Is plan current & appropriate for distribution system & population?		
• Is monitoring frequency correct?		
• Sampled in accordance with approved plan?		
• Seasonal Startup Procedures Completed Since Last Visit?		
• RTCR Level 1 or 2 Assessments since last Survey?		
• Disinfection required? (adequate contact time)		
• 4-Log virus inactivation required?		
• 4-Log virus inactivation provided?		
• On-line chlorine analyzers required for chlorine residual?		

<b>ROUTINE RAW WATER BACTERIOLOGICAL MONITORING</b> ( <i>checked over past 12 months</i> )		
• Required?		
○ If “Yes”, Frequency?		
• # of <i>E. coli</i> -positive Samples?		
• # Samples with Total Coliform > 50 CFU/100 mL?		

<b>GUDI DETERMINATION</b>	<b>RESULT</b>	<b>DATE</b>
• <i>Source # / Name</i>		
• <i>Source # / Name</i>		

<b>SOURCE WATER ASSESSMENT PERFORMED</b>	<b>DATE</b>
• <i>Source # / Name</i>	
• <i>Source # / Name</i>	

<b>SOURCE WATER PROTECTION</b>	<b>DATE</b>
• Written source water protection plan?	
Comments:	

Y = Yes; N = No; NA = Not Applicable; N/I = Not Inspected; None = None; OK = Acceptable

<b>CROSS-CONNECTION CONTROL PROGRAM</b>		
• Approved?	(Yes/No)	(Date)
• Inspected Records This Visit?		
• Program Active?		
• Satisfactory?		

<b>OPERATION REPORTS</b>	
• All submitted for past 12 months?	
• Appropriate operational treatment parameter monitoring?	
• All required information/analyses reported?	

<b>ENFORCEMENT</b>		
• Administrative Order in Effect?		
• Violations / Enforcement Actions Since Last Survey?		
• Owner issued Public Notice as required?		
• Active Corrective Action Plan?		
○ If “Yes”, is waterworks on schedule?		
• SDWIS Violation & Enforcement Action, Public Notification data current?		

<b>COMPLAINTS SINCE LAST INSPECTION:</b>
• If yes, summarize:
Comments:

Y = Yes; N = No; NA = Not Applicable; N/I = Not Inspected; None = None; OK = Acceptable

**MONITORING HISTORY**

**Insert R&R report - Next Chemical Sample Due.**

**If field notes are sent with the owner's report, the Next Chemical Sample Due report does not need to be included in both this section and the owner's report.**

**PART II - SYSTEM SURVEY INFORMATION (Field Notes)**

Shaded Boxes

Indicate a potential Significant Deficiency

**COMBINED SECTIONS**

- A. SOURCE - WELL
- B. WELL HOUSE
- C. STORAGE PNEUMATIC TANK(S)
- D. CHEMICAL FEED SYSTEMS – SAFETY/GENERAL
- E. DISINFECTION
- F. NEW ACTIVITIES OR POLLUTION SOURCES
- G. STORAGE - ATMOSPHERIC TANK(S)
- H. BOOSTER PUMP STATION(S)

**INDIVIDUAL SECTIONS**

- I. SOURCE - SPRING / SPRING ENCLOSURE / PUMP FACILITIES
- J. DISTRIBUTION SYSTEM
- K. CONTINUOUS CHLORINE ANALYSIS
- L. ULTRAVIOLET LIGHT UNITS
- M. CORROSION CONTROL TREATMENT
- N. IRON & MANGANESE CONTROL ( $\text{KMnO}_4$  - GREENSAND FILTERS)
- O. SOFTENING (CATION EXCHANGE USING NaCl)
- P. REVERSE OSMOSIS

**It is not necessary to include this page in a completed Sanitary Survey Report**



A. SOURCE (WELL # / NAME)		C. STORAGE - PNEUMATIC TANK(S) (NAME/ LOCATION) (Tank Volume)		E. DISINFECTION	
Sanitary Casing Seal /Cap				Disinfectant	
Elbowed Casing Vent/Screened		Type: Pre-Pressurized or Hydro-Pneumatic		ANSI Certified/NSF Approved / “GRAS”	
12” Casing Extension		Drain Protected from Contamination		Feeder Condition	
Concrete Pad (6’ Square)		Pressure Gauge/Reading		Spare Feeder/Repair Parts	
Well Lot Condition (50 ft Radius)		Pressure Operating Range		Room Ventilation	
Protected from Flood Waters/Runoff		Sight Glass/Level Indicator		Contact Tank in service	
Discharge Check Valve		Sample Tap Available		Contact Tank Condition	
Discharge Shut-Off Valve		Pressurizing System		Injection Line Condition (Scale Build-Up, etc.)	
Valved Blow-Off		Vacuum Relief Valve		Solution Tank Condition	
Raw Water Sample Tap		Pressure Relief Valve		Solution Tank Covered	
Water Level Gauge or Transducer		Air Relief Valve		Feeder Activation/Operation	
Operable Water Meter/Reading		Exterior Condition		Weight (gas) or Volume/Depth (OCl) Scale	
Permitted Capacity (gpd)		Normal Pump Cycling		Number Full Cylinders (Gas Only)	
Pumping Rate Observed (gpm)		Tank Watertight, Structurally Sound		Booster Pump(s)	
Pumping Average hrs/day		Flushed/Cleaned Date		Residual Test Equipment	
Permitted Source Capacity Exceeded?		Dept. of Labor & Industry Exp. Date (>120 gal.)		Free Residual, mg/l	
Discharge Head Observed (psi)				Field test ≈ MOR residuals	
All Weather Access					
<b>B. WELL HOUSE</b>		<b>D. CHEM. FEED SYSTEMS</b> SAFETY / GENERAL		<b>F. NEW ACTIVITIES OR POLLUTION SOURCES</b> within 1000 ft radius of well that present a significant/acute health risk.	
Adequate Protection		Do any chemical storage and handling facilities offer potential for explosions?		Activity or Pollution Source	Approx. Distance from Well
Proper Storage Only (Non-toxic & Non-explosive)		Is adequate safety equipment provided for chemical handling (i.e. rubber gloves, breathing apparatus, goggle, aprons, etc.)?			
Cross-Connections Exist?		Are Material Data Safety Sheets (MSDS) available?			
Lighting		Are hazardous chemical containers labeled?			
Heating		Is adequate chemical storage area provided?			
Electrical Wiring (Safety)		Are there approved backflow prevention devices installed to isolate process water from finished water?			
Floor Drain		Does the waterworks have adequate employee safety training?			
All-Weather Access					
Wellhead Accessible					
Locked					
Clean/Uncluttered					
Emergency Power Available					
<b>Comments:</b>					

Y = Yes; N = No; NA = Not Applicable; N/I = Not Inspected; None = None; OK = Acceptable

<b>G. STORAGE - ATMOSPHERIC TANK(S)</b> (NAME/LOCATION) (Tank Volume)		<b>H. BOOSTER PUMP STATION(S)</b> (NAME/LOCATION)	
<b>WATER QUALITY PROTECTION</b>		<b>PUMP STATION LOT</b>	
Structure Watertight		Upkeep Adequate	
Vent Shielded and Screened		Surface Water Diverted Away	
Drain Satisfactory, Protected		Access Road Maintained	
Tank Overflow		<b>PUMP STATION BUILDING</b>	
• Screened		Light Operable	
• Air Gap Provided at Outlet		Ventilation Operable	
• Splash Pad/Erosion Protection		Heating Operable	
Roof Hatch Watertight		Pump Gland Piped to Drain	
Sidewall Access Watertight		Concrete Floor	
Accesses Locked/Bolted		Screened Floor Drain	
Other Tank Openings Curbed and Sleeved		Locked	
Other Tank Openings Covered		Deterioration &/or Damage Evident	
Maintenance/Repair Date		Storage of Toxic Chemicals	
Frequency/Date of Professional Tank Survey (Recommended ~5 yr)		<b>PUMP STATION OPERATIONS</b>	
Frequency/Date of Routine Tank Survey (Recommended ~1yr)		No. of Pumps in Operation	
Tank(s) Appear Structurally Sound		All Pumps Operable	
Properly Modified for Antennae?		Pump Controls:	
<b>WATER QUALITY MAINTENANCE</b>		• Automatic	
Sample Tap Available		• Manual	
Frequency Samples Collected		Pump Alternation:	
Floating Debris Observed		• Automatic	
Good Turnover Potential		• Manual	
Flushed/Cleaned Date		Flow Meter Operable	
<b>OPERATION</b>		Low Pressure Cut-off	
Tank Level Controls Operable		Alarm Operable	
Automatic or Manual		Compound Gauges Operable	
Tank Level Recorded		Cross Connections are Present	
Automatic Recorder Operable		<b>PUMP MAINTENANCE</b>	
<b>CORROSION CONTROL</b>		Pump Service Schedule	
Routine Interior Inspections Scheduled		Pump Service Recorded	
Interior Corrosion Visible		Discharge Gate Valve	
Exterior Corrosion Visible		Suction Gate Valve	
Cathodic Protection Operable		Check Valve	
<b>SAFETY</b>		Emergency Power Available	
Interior/Exterior Ladder Condition		<b>COMMENTS:</b>	
Interior/Exterior Ladder Guard			
Adequate Railing Available			
Safety Belt Available			
<b>LOT</b>			
Upkeep			
Access Road Maintained			
Surface Water Diverted			
Fence Condition Good			
Access Locked			

Y = Yes; N = No; NA = Not Applicable; N/I = Not Inspected; None = None; OK = Acceptable

<b>I. SOURCE - SPRING / SPRING ENCLOSURE / PUMP FACILITIES</b>		
	<b>SPRING # / NAME</b>	<b>SPRING # / NAME</b>
Construction Sufficient to Prevent Contamination		
Protected From Flooding		
Spring Overflow Screened		
Spring Lot		
All-Weather Access		
No Cross Connections		
Clean/Uncluttered		
Improper Storage of Contaminants		
Spring Enclosure Condition/Acceptable		
Spring Enclosure Protected (Lot Fenced)		
Locked		
Electrical Wiring (safety)		
Lighting		
Heating		
Entry Point Tap Available		
Raw Water Sampling Tap		
Discharge Check Valve		
Discharge Shut-Off Valve		
Valve Discharge to Waste		
Operable Water Meter		
Spring Yield - gpm (if available)		
Emergency Power available		
Comments:		

Y = Yes; N = No; NA = Not Applicable; N/I = Not Inspected; None = None; OK = Acceptable

<b>J. DISTRIBUTION SYSTEM EVALUATION</b>	
Pipe Material(s):	
Flushing Provisions (hydrants, blow-offs, etc.) available?	
Adequate Pressure Maintained Throughout? (>20 psi @ peak flow)	
Problems/Complaints in past year? <input type="checkbox"/> taste & odor <input type="checkbox"/> pressure <input type="checkbox"/> turbidity/sediment <input type="checkbox"/> color <input type="checkbox"/> service interruptions <input type="checkbox"/> other Describe:	
Pipe Repair - proper disinfection/sampling procedures used?	
Leakage rates > 30%? Explain:	
Comments:	

Y = Yes; N = No; NA = Not Applicable; N/I = Not Inspected; None = None; OK = Acceptable

<b>K. CONTINUOUS CHLORINE ANALYSIS</b>	<i>NAME/LOCATION</i>
<b>Grab Sampling</b>	
<ul style="list-style-type: none"> <li>• Are grab samples collected at least weekly for routine calibration checks for each on-line analyzer?</li> </ul>	
<ul style="list-style-type: none"> <li>• Is a sample tap for grab samples located as close as feasible to where samples enter the on-line analyzer?</li> </ul>	
<ul style="list-style-type: none"> <li>• What method is used to analyze grab samples?</li> </ul>	
<ul style="list-style-type: none"> <li>• Is the method acceptable?</li> </ul>	
<b>Calibration</b>	
<ul style="list-style-type: none"> <li>• Are results of calibration checks within the larger of +/- 0.1 mg/l or +/- 15%?</li> </ul>	
<ul style="list-style-type: none"> <li>• Are emergency calibration checks performed as soon as possible when an on-line chlorine analyzer indicates a large (&lt;50%) unexpected change in chlorine residual concentration?</li> </ul>	
<ul style="list-style-type: none"> <li>• Are records of calibration recorded and maintained for 3 years?</li> </ul>	
<b>On-line Analyzers</b>	
<ul style="list-style-type: none"> <li>• Does each analyzer have the readout at its installation and continuous recording (hard copy chart or electronic data)?</li> </ul>	
<ul style="list-style-type: none"> <li>• Is data recorded at least every 15 minutes?</li> </ul>	
<ul style="list-style-type: none"> <li>• Is an alarm activated when chlorine concentration is outside normal operating range?</li> <li>• If yes, what are the alarm settings? Minimum? _____ Maximum? _____</li> </ul>	
Do all chemical reagents and standards for on-line analyzers and grab sample methods have an unexpired shelf life?	
Comments:	

<b>L. ULTRAVIOLET LIGHT UNITS</b>	<i>NAME/LOCATION</i>
Does the UV Unit appear to be functioning?	
Is the bulb changed according to the manufacturer’s recommended schedule?	
Comments:	

Y = Yes; N = No; NA = Not Applicable; N/I = Not Inspected; None = None; OK = Acceptable

<b>M. CORROSION CONTROL or SEQUESTRATION</b>	<i>NAME/LOCATION</i>
Type Treatment (ortho/poly/blend – phosphate, pH/alkalinity adjustment, calcite contactor, silicate, etc.): & purpose?	
Back Siphonage Protection Provided?	
Safety Eyewear and Clothing Provided?	
Chemical(s) Meet ANSI / NSF Standards?	
Equipment Literature Available?	
Equipment Condition?	
Equipment Operation Adequate?	
Spare Feeder/Metering Pump?	
Proper Mixing Downstream of Chemical Addition?	
Adequate Mixing Provided for Chemical Slurries?	
Separate Feeder/Storage Room Provided?	
Suitable Chemical Storage (30 days minimum)?	
Suitable Sampling Taps (upstream, downstream)?	
Calcite Addition Based Upon (calcite contactor)?	
Disposal of Backwash Waste (downflow calcite contactor)?	
Appropriate & Operable Testing Equipment?	
Comments:	

Y = Yes; N = No; NA = Not Applicable; N/I = Not Inspected; None = None; OK = Acceptable

<b>N. IRON &amp; MANGANESE CONTROL (KMnO<sub>4</sub> – GREENSAND FILTER, OTHER-specify)</b>	<i>NAME/LOCATION</i>
Cross-Connection Protection – KMnO <sub>4</sub> Mixing Tank?	
Safety Eyewear and Clothing Provided?	
Chemicals meet ANSI / NSF Standards?	
Equipment Literature Available?	
Equipment Condition?	
Equipment Operation Adequate?	
Continuous or Batch KMnO <sub>4</sub> Addition?	
Spare Metering Pump Provided?	
pH Adjustment?	
KMnO <sub>4</sub> Addition Follows pH Adjustment?	
Supplemental Oxidants (aeration, chlorine, other)?	
If Aeration, How Provided?	
Is Disinfection Provided?	
Suitable Sampling Taps (prior to KMnO <sub>4</sub> , influent, effluent)?	
Suitable KMnO <sub>4</sub> Storage (30 days minimum)?	
Is KMnO <sub>4</sub> stored away from organic materials (explosion hazard)?	
Backwash (gravity from system/storage, pumped, other)?	
No. Backwash Pumps?	
Air Wash Provided?	
Disposal of Backwash Waste?	
Appropriate & Operable Testing Equipment?	
Comments:	

Y = Yes; N = No; NA = Not Applicable; N/I = Not Inspected; None = None; OK = Acceptable

<b>O. ION EXCHANGE</b>	<b><i>NAME/LOCATION</i></b>
Treatment Purpose (softening, Fe/Mn removal, other)?	
Cross-Connection Protection – Water Inlet to Brine Tank?	
Chemicals meet NSF Standards?	
Equipment Literature Available?	
Equipment Condition?	
Equipment Operation Adequate?	
Bypass for Blending?	
Regeneration (automatic, manual)?	
Backwash (gravity from system/storage, pumped, other)?	
No. Backwash Pumps?	
Suitable Sampling Taps (influent, effluent, blended)?	
Corrosion Problem Due to Salt Storage/Usage?	
Suitable Salt Storage (30 days minimum)?	
Salt Storage/Brine Tank Separated from Vulnerable Equipment?	
Disposal of Brine Waste?	
Appropriate & Operable Testing Equipment?	
Comments:	

Y = Yes; N = No; NA = Not Applicable; N/I = Not Inspected; None = None; OK = Acceptable

<b>P. REVERSE OSMOSIS</b>			<i>NAME/LOCATION</i>		
	Satisfactory?		Comments		
	Yes	No			
Treatment purpose			(Fluoride removal, Desalination, other)		
Number & configuration			(Pre-filters, RO units)		
Equipment condition?					
Equipment operation?			(Actual Feed Rate =   gpm; Recovery =   %; Design Feedrate =   gpm; Recovery =   %)		
O&M manual available?					
Bypass for blending?			(Treated =   % <i>or</i> gpm; Bypassed =   % <i>or</i> gpm)		
Flowmeters			Location	Reading	Condition
•					
•					
Pressure gauges			Location	Reading	Condition
•					
•					
Test equipment?			(Equipment; Availability; Condition)		
Performance Monitoring			Parameter	Frequency	Value
Element replacement?			(Schedule or condition; Date last replaced)		
<b>Chemical Pretreatment</b>			Refer to table below		
Chemicals meet NSF 60?					
Concentrate Disposal?			(Location, Condition)		
Field test results - Applied water - Recovered water - Blended water			Temp	pH	Na    F    Other

Y = Yes; N = No; NA = Not Applicable; N/I = Not Inspected; None = None; OK = Acceptable



<b>Q. REVERSE OSMOSIS (Cont.)</b>					
Pretreatment Chemical	Function	Conc.	Feedrate	Storage Location/Quantity	Remarks
	Acid for pH adjustment				
	Antiscalant				
	Sequestration of Fe & Mn				
Comments:					

Y = Yes; N = No; NA = Not Applicable; N/I = Not Inspected; None = None; OK = Acceptable

**FM-C1-Attachment 13.** Plain Transmittal Letter for Sanitary Survey Report.

**INSTRUCTIONS:** Complete/select items shown in *italics* and underlined, and convert to regular font. Staff may apply minor editorial judgment for situational correctness. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

SUBJECT: County/City  
WATERWORKS: Waterworks Name  
PWSID: PWSID

Date

Waterworks Owner  
Address  
City, State, Zip

Dear Waterworks Owner:

On (date), (name) conducted a sanitary survey of your waterworks. Enclosed is a copy of the report developed as a result of that survey. Please note our list of comments and recommendations on page x of the inspection report. Additional items may be found in the body of the report.

If you have questions on the report, or would like to discuss my findings, please do not hesitate to contact me at (phone number) or email at (email address).

This office thanks the staff at the (waterworks name) for their assistance and professionalism during the inspection.

Sincerely,

Name & Title  
Field office name

ABC:xyz

Enclosure: Inspection Report

ec: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director.  
Administrator/Manager, name of County, County

**FM-C1-Attachment 14.** Inspection Report Following Completion of Action Item.

**VIRGINIA DEPARTMENT OF HEALTH  
OFFICE OF DRINKING WATER**

**SUBJECT:  
WATERWORKS:  
PWSID:**

**SIGNIFICANT DEFICIENCY CORRECTED**

Owner Name:		Waterworks Class:	
Type of Waterworks:			
Contact Name:			
Contact Address:			
Contact Phone Number:			
Inspection By:		Inspection Date:	
Time Spent:			
Date to Reviewer:		Reviewed by/Date:	
Present at Inspection:			
Facilities Inspected:			
List of Significant Deficiencies Identified in the Corrective Action Plan (CAP)			
CAP Approval Date:			
Significant Deficiencies	Start Date	Completion Date	Satisfactory?
Date SDWIS Updated:			
Comments:			

**FM-C1-Attachment 15.** Letter Indicating that Significant Deficiencies Corrected.

**INSTRUCTIONS:** Complete/select items shown in *italics* and underlined, and convert to regular font. Staff may apply minor editorial judgment for situational correctness. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

SUBJECT: County/City  
WATERWORKS: Waterworks Name  
PWSID: PWSID

Date

Waterworks Owner  
Address  
City, State, Zip

Dear Waterworks Owner:

We have received your notification of completion of an action item, and this office has conducted a follow-up inspection to verify elimination of the significant deficiency in accordance with the approved Corrective Action Plan. This letter is to advise that the Significant (Deficiency/Deficiencies has/have) been corrected.

Enclosed is a copy of the inspection report for your records.

This office thanks the staff at the (waterworks name) for their assistance and professionalism during the inspection. If you have questions on the report, or would like to discuss my findings, please do not hesitate to contact me at (phone number) or email at (email address).

Sincerely,

Name & Title  
Field office name

ABC:xyz

Enclosure: Inspection Report

ec: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director. Administrator/Manager, name of County, County

**FM-C2-Attachment 1.** Letter Indicating Treatment Technique Requirement with PN.

**INSTRUCTIONS:** Complete/select items shown in *italics* and underlined, and convert to regular font. Staff may apply minor editorial judgment for situational correctness. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

**NOTIFICATION OF TREATMENT TECHNIQUE REQUIREMENT**

Subject: County/City  
Water: Waterworks Name  
PWSID No.: PWSID

Date

Waterworks Owner  
Address  
City/State Zip

Dear Waterworks Owner:

According to Virginia Department of Health (VDH) records, your (select - well or spring) water tested positive for *Escherichia coli* (*E. coli*) bacteria in (state total number) raw water samples collected on (insert dates). Because your (select - well or spring) now has a confirmed *E. coli* contamination, you are required to complete the following actions:

Treatment Technique Requirements/Corrective Action Plan (CAP):

Consult with the Office of Drinking Water (ODW) to develop a CAP to resolve the confirmed *E. coli* contamination, in accordance with Section 12VAC5-590-421 A 2 of the *Waterworks Regulations*. Enclosed is a proposed CAP for you to review, sign, and return if acceptable no later than (insert date of letter plus 30 days). If you wish to revise the CAP, please contact this field office immediately.

Upon completion of each action item in the CAP, you must report the status to this field office within 30 days after the completion date. Once the CAP has been fully implemented, contact this office to schedule an inspection.

Failure to respond by the above deadlines may constitute non-compliance with the *Waterworks Regulations* established to protect public health, and formal enforcement action may be initiated to compel compliance.

Public Notification:

On (insert date), (select - I or other individual's name of this office) talked with you by telephone about the public notification requirements. You were advised to notify your customers of the confirmed *E. coli* contamination in your (select - well or spring) within 24 hours. We provided a sample written notice for you to distribute to your customers. A copy of the draft public notice is enclosed. The *Waterworks Regulations* characterizes this as a Tier 1 situation.

Public Notice Confirmation:

Within ten (10) days of distribution of the public notice to your customers, but no later than (insert date), you must provide this office with a copy of the notice you distributed and a signed certification of the distribution completion date and methods used. A sample certification form is enclosed for your use. Failure to distribute the public notice and report to the VDH may be a violation of the *Waterworks Regulations*.

(Optional for field staff)

(Develop and insert a paragraph of any additional or interim actions, such as system disinfection, additional, sampling, etc. that are deemed appropriate to the situation at hand.)

If you have any questions or concerns regarding this matter, please contact me at (phone number) or email at (email address).

Sincerely,

Name & Title

Field office name

ABC:xyz

Enclosures:   1. Corrective Action Plan (CAP)  
                  2. Public Notice  
                  3. Public Notice Certification form

ec: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director. Administrator/Manager, name of County, County

## **CORRECTIVE ACTION PLAN (CAP)**

Implement the following interim and corrective actions to address the confirmed *E. coli* contamination of your groundwater source.

### A. INTERIM ACTION REQUIREMENTS

1. Discontinue use of the groundwater source until such time as the CAP has been fully implemented, or
2. If the (*select - well or spring*) must remain in service because discontinuing use of the source is not a viable option, then:
  - a) The waterworks owner shall issue a Boil Water Advisory through the public notification procedure in 12VAC 5-590-540 of the *Waterworks Regulations* until such time as the VDH approved 4-log virus treatment facilities have been installed and are operational.
  - b) Provide emergency chlorine disinfection during the interim period as follows: the free chlorine residual disinfectant concentration at the entry point to the distribution system shall not be less than 2.0 mg/L.
  - c) Chlorine residual in the distribution system shall not be less than 0.2 mg/L.

### B. CORRECTIVE ACTION REQUIREMENTS

The following corrective actions and schedules must be followed. As you complete each action item you are required to report in writing the status to the VDH.

<b>ACTION ITEM</b>	<b>START DATE</b>	<b>COMPLETION DATE</b>
Submit plans and specifications prepared by a Virginia licensed Professional Engineer for a continuous chlorination system capable of meeting the 4-log virus inactivation requirements.	Immediately	Target 45 days
Complete construction and have in operation the approved treatment facilities.	Upon issuance of construction permit	Target 120 days from construction permit issuance

I agree to fully implement the above interim and corrective actions to bring my waterworks into compliance with the Treatment Technique requirement of the *Waterworks Regulations*.

---

Waterworks Owner (Signature)

Date

PWSID: \_\_\_\_\_

**NOTICE TO CONSUMERS**  
of the (Insert Name) WATERWORKS

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**DO NOT DRINK TAP WATER WITHOUT BOILING IT FIRST**

State Health Officials have advised us that according to Virginia Department of Health records, the (select - well or spring) water tested positive for *Escherichia coli* (*E. coli*) bacteria in (state total number) raw water samples collected on (dates). Because the (select - well or spring) has a confirmed *E. coli* contamination, we are required to take corrective action to include this Boil Water Advisory and the final installation of disinfection treatment.

*E. coli* are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Human pathogens in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a greater health risk for infants, young children, the elderly, and people with severely compromised immune systems. We violated the standard for *E. coli*, indicating the need to look for potential problems. When this occurs, we are required to take corrective action to include interim disinfection and a final plan for corrective action.

General guidelines on ways to lessen the risk of infection by microbes are available from EPA's Safe Drinking Water Hotline at 1 (800) 426-4791.

State Health Officials feel there is a need for concern about the safety of your water. Therefore, until further notice:

**DO NOT DRINK TAP WATER WITHOUT BOILING IT FIRST**

Bring all tap water to a rolling boil, let it boil for one minute, and let it cool before using, or use bottled water. Boiled or bottled water should be used for drinking, beverage and food preparation, brushing teeth, and making ice. Boiling kills bacteria and other disease-causing microorganisms in the water. Boiling is the preferred method to assure that the tap water is safe to drink. Water does not need to be boiled for washing clothes, bathing, washing dishes, or other uses where water is not ingested. However, care should be taken not to allow children or infants to drink bath water or allow it to get into their mouths.

**If you cannot boil your tap water:**

- An alternative method of purification for residents that do not have gas or electricity available is to use liquid household bleach to disinfect water. The bleach product should be recently purchased, free of additives and scents, and should contain a hypochlorite solution of at least 5.25%. Public health officials recommend adding eight (8) drops of bleach (about ¼ teaspoon) to each gallon of water. The water should be stirred and allowed to stand for at least 30 minutes before use.
- Water purification tablets may also be used by following the manufacturer's instructions.



- Potable water is available at the following locations: (List locations where water is available and any special instructions)

We will implement interim measures and will be following up with all corrective actions in accordance with an approved corrective action plan. You will be notified of future developments.

We anticipate resolving the problem within the next provide time frame.

For more information, please contact: name of owner/operator at contact address or contact phone

***Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.***

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Confirmed *E. coli* Contamination

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**

By direct (hand) delivery on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

at the following locations: \_\_\_\_\_

Provided to the following broadcast media (list: television/radio/website/social media) on

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Other approved method: \_\_\_\_\_ (method and date)

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Signature)

RETURN TO: Name Field Office, Office of Drinking Water  
Address

**FM-C2-Attachment 2.** Evaluation Form for 4-Log Inactivation of Viruses.

**4-LOG VIRUS TREATMENT EVALUATION FORM - INSTRUCTIONS**

This form is to be used in evaluating a waterworks for compliance with 4-log treatment for virus removal.

1. Determine what facilities the waterworks has that may be used in calculating CT (for discussion on CT, see 12VAC5-590-500 of the *Waterworks Regulations*). Recommended procedure is to evaluate atmospheric storage first, pressure storage second, and pipeline last. For pressure tanks that float on the system with a combined inlet/outlet, no effective T (time) is available.
2. Determine the peak hourly flow rate for each component to be evaluated. For example, the peak flow for an atmospheric tank would be the greater of the booster pump(s) or well pump(s) capacity.
3. Select a lowest free chlorine residual (C) value between 0.2 and 1.5 mg/L, with calculations starting on the lower end and following an iterative process until CT requirements are met.
4. Evaluate CT credit from atmospheric storage. The minimum operating volume should be based on the lowest expected water level (actual pump “on” and “off” levels should be used to compute effective storage volume). The appropriate baffling factor should be applied to the effective volume. Use guidance in attached worksheet, for assigning a baffling factor (adopted from Table 500.15 of the *Waterworks Regulations*). If CT requirements are met go to step 7, otherwise proceed to the next step.
5. Evaluate CT credit from pressure storage. Note that no credit is given for typical bladder tanks which are “sideline” storage. Typically, only 1/3 of pressure storage is available. Typical baffling factor would be 0.1 for inlet/outlet on the same end (“unbaffled”), or 0.3 for separate inlet/outlet on opposite ends of the tank (“poorly baffled”). If CT requirements are met go to step 7, otherwise proceed to the next step.
6. Evaluate CT credit from pipelines. Any CT credit shall be before the entry point sample tap, to avoid collecting a sample out in the distribution system. [We can accept pipeline flow with a baffle factor of 1.0 as shown in the "CT from pipelines" in the 4 Log Virus Treatment Evaluation Form].
7. Compare  $CT_{\text{credit}}$  to  $CT_{\text{required}}$ . If current facilities do not provide for the required CT, then waterworks may follow established procedures to obtain a construction permit for modifications.
8. Complete the Disinfectant Residual Achievable worksheet. The chlorine feed rate required,  $Q_{\text{pump}}$ , must be less than 80% of the capacity of the existing pump.

Baffling Factor, per Table 500.15 of the *Waterworks Regulations*

Baffling Condition	Baffling Factor = $T_{10}/T$	Baffling Description
Unbaffled (mixed flow)	0.1	None, agitated basin, very low length-to-width ratio, high inlet and outlet flow velocities
Poor	0.3	Single or multiple unbaffled inlets and outlets, no intra-basin baffles
Average	0.5	Baffled inlet or outlet with some intra-basin baffles
Superior	0.7	Perforated inlet baffle, serpentine or perforated intra-basin baffles, outlet weir or perforated launders

## 4-LOG VIRUS TREATMENT EVALUATION FORM

Evaluator:		PWSID No.:	
Date:		Waterworks Name:	
<b>GROUNDWATER SYSTEMS : 4-LOG VIRUS TREATMENT EVALUATION</b> For waterworks that disinfect with gaseous chlorine or sodium hypochlorite			
<b>Step 1. Determine CT Credit</b>			
Lowest free chlorine residual, C			mg/L
<b>CT from Atmospheric Storage</b>			
1	Minimum Operating Volume, V		gal
2	Peak hourly flow, Q <sub>pk</sub>		gpm
3	Theoretical Contact Time, T=V/Q <sub>pk</sub>		minutes
4	Baffling Factor, BF		
5	Effective Contact Time, T <sub>10</sub> = T * BF		minutes
6	CT <sub>atm-storage</sub> = C * T <sub>10</sub>		min-mg/L
<b>CT from Pressure Storage</b>			
1	Minimum Operating Volume, V		gal
2	Peak hourly flow, Q <sub>pk</sub>		gpm
3	Theoretical Contact Time, T=V/Q <sub>pk</sub>		minutes
4	Baffling Factor, BF		
5	Effective Contact Time, T <sub>10</sub> = T * BF		minutes
6	CT <sub>press-storage</sub> = C * T <sub>10</sub>		min-mg/L
<b>CT from Pipelines</b>			
1	Pipe length, L		feet
2	Pipe Diameter, D		inch
3	Pipe Volume, V = L * 3.14 * (D/24) <sup>2</sup> * 7.48		gal
4	Minimum pipe detention time, T <sub>pipe</sub> = V / Q <sub>pk</sub>		minutes
5	CT <sub>pipe</sub> = C * T <sub>pipe</sub>		min-mg/L
Total CT <sub>credit</sub> = CT <sub>pipe</sub> + CT <sub>atm-storage</sub> + CT <sub>press-storage</sub>			min-mg/L
<b>Step 2. Determine CT<sub>required</sub></b>			
10	Coldest water temperature, t = (if unknown, use default value = 10 °C)		°C
On Table below Line A – circle value of coldest water temperature. Line B – circle corresponding = CT <sub>required</sub>			
<b>Step 3. Compare Total CT credit : CT<sub>required</sub></b>			
Total CT <sub>credit</sub> ≥ CT <sub>required</sub> ? (circle answer)		YES	NO

CT Values for 4-Log Virus Inactivation by Free Chlorine, pH = 6.0 – 9.0										
A	Temp °C	1	2	3	4	5	6	7	8	9
B	4-Log Inactivation	11.6	10.7	9.8	8.9	8.0	7.6	7.2	6.8	6.4
CT Values for 4-Log Virus Inactivation by Free Chlorine, pH = 6.0 – 9.0										
A	Temp °C	10	11	12	13	14	15	16	17	18
B	4-Log Inactivation	6.0	5.6	5.2	4.8	4.4	4.0	3.8	3.6	3.4

**DISINFECTANT RESIDUAL ACHIEVABLE**

The following worksheet determines if the required free chlorine concentration can be achieved with the existing facilities to obtain 4-log virus treatment.

Free Chlorine Residual required, $C_{residual}$ Measurement location: (Typically at the Entry Point sample tap)		mg/L
Chlorine demand, $C_{demand}$ (assume 0.2 mg/L unless actual data is provided)		mg/L
Peak hourly flow, $Q_{pk}$		gpm
Chlorine feed capacity evaluation: Chlorine solution concentration, $C_{soln}$ Chlorine feed required based on minimum CL residual, $Q_{pump}$ $Q_{pump} = ((Q_{pk} * 1440) * (C_{residual} + C_{demand})) / C_{soln}$		mg/L gpd
Can the waterworks provide the required minimum chlorine dosage? ( $Q_{pump}$ must be less than 80% of existing pump capacity)	YES	NO
Is the minimum chlorine residual concentration acceptable to customers?	YES	NO

**FM-C2-Attachment 3.** Letter on Acceptance of 4-Log Inactivation of Viruses.

**INSTRUCTIONS:** Complete/select items shown in *italics* and underlined, and convert to regular font. Staff may apply minor editorial judgment for situational correctness. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

#### 4-LOG NOTIFICATION LETTER

Subject: County/City  
Water: Waterworks Name  
PWSID No.: PWSID

Date

Waterworks Owner  
Address  
City, State, Zip

Dear Waterworks Owner:

We have evaluated the performance of the chlorine disinfection facilities of your waterworks relative to meeting 4-log virus inactivation (*insert as applicable for well # and entry point #*), as described in the *Waterworks Regulations*. The waterworks appears to provide the required 4-log virus inactivation, as it is currently configured and operated. A copy of our completed waterworks performance evaluation form is attached for your information. The evaluation was based on the peak flow through the disinfection process, and an assumed minimum water temperature value of 10° C (50° F).

In order to consistently achieve 4-log inactivation of virus, your waterworks will need to be operated and monitored to assure that the following finished water quality is produced:

- Minimum Free Residual Chlorine Concentration, measured at the entry point sample tap – (*insert value here*) mg/L
- Minimum/Maximum pH Range: 6.0 – 9.0

Please note that the minimum chlorine residual specified above is for meeting the 4-log inactivation requirements for viruses. A greater chlorine dosage may be necessary to maintain acceptable chlorine residuals and bacteriological quality in the distribution system than is required to provide 4-log virus inactivation.

(Field Staff to Select the Appropriate Option)

(Waterworks population > 3,300 or Waterworks population ≤ 3,300 with this option)

You must continuously monitor and record the residual disinfectant concentration at the approved location each day that you serve water from the well(s) to the public. The daily lowest residual disinfectant concentration must be reported on the monthly operations report (MOR) submitted to this office.

(Waterworks population ≤ 3,300)

You must collect at least one grab sample from the entry point sample tap, during the hour of peak flow, each day that you serve water from the well(s) to the public. The daily grab sample result must be reported on the monthly operations report (MOR) submitted to this office.

The operators of your waterworks will need to closely monitor the entry point free chlorine residual. Failure to maintain adequate chlorine residual may result in a Treatment Technique violation of the *Waterworks Regulations*. Enclosed is a revised monthly operation report (MOR), which will be reviewed by this office to evaluate compliance with the virus inactivation Treatment Technique. Use of the enclosed MOR must begin on (insert month, year), but you may start to use it immediately.

Your cooperation during our evaluation is appreciated. If you have any questions or concerns regarding this matter, please contact (insert name), District Engineer, or me at (phone number) or email at (email address).

Sincerely,

Name, Engineering Field Director  
Engineering Field Director  
Field office name

ABC:xyz

Enclosures: 1. Waterworks Performance Evaluation  
2. Revised Monthly Operation Report (MOR) Template

cc: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director.



**FM-C3-Attachment 1. Monthly Operations Report (MOR) Comment Letter.**

**INSTRUCTIONS:** Complete/select items shown in *italics* and underlined, and convert to regular font. Staff may apply minor editorial judgment for situational correctness. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner

Address

City, State, Zip

Dear Waterworks Owner:

We are in receipt of the Monthly Operation Report (MOR) dated (insert date) for the subject waterworks, as prepared by (insert name). We have completed our review and have the following comments/recommendations:

[When applicable, field staff to develop content of letter. Ordinarily, MORs do not need to be commented on, and phone calls and/or emails may be more efficient at resolving issues. However, when they do not meet expectations, field staff may want to send a comment letter to the waterworks tailored to the issues that need to be addressed. List all comments and recommendations that are applicable.]

Please address these comments/recommendations and re-submit the revised MOR within 30 days of receipt.

If you have any questions concerning the above comments/recommendations or desire further information regarding this matter, please contact me at (phone number) or email at (email address).

Sincerely,

Name & Title

Field office name

ABC:xyz

Enclosure(s): (If applicable, insert relevant information)

## **General Safety Fact Sheet -** ***Basic Information - Safety in the Workplace***

### **What is Safety?**

Some traditional notions of safety include the following ideas or concepts:

- The condition of being safe.
- Freedom from exposure to danger.
- Exemption from hurt.
- To protect against failure.
- Knowledge of or skill in methods of avoiding accidents or disease.

Safety is more than words, and it requires planning and conscientious observance and action to be effective. This would involve establishing a viable and sustainable safety program with employee representation. In general terms, safety can be construed as using one's knowledge or skill to avoid accidents to protect one's self and others from accidents including disease. Further, safety can be viewed as a form of preventive maintenance which includes (broadly) the proper handling of materials and equipment and responding to environmental hazards. At the very least, safety is everyone's business and each person should be responsible for their own personal safety.

It is in the interest of the Office of Drinking Water (ODW) to have all of its employees be sufficiently knowledgeable about the importance of safety while performing the work of the office, both internally and especially externally while conducting field inspections. In this way, the overall goal of hazard abatement and employee protection is best served. Every employer engaged in a business (such as a waterworks) that affects commerce must furnish a place of employment that is free from recognized hazards that are causing, or likely to cause, death or serious physical harm to its employees. Employees should refer to their employee work profile (EWP) for individual job responsibilities as they pertain to safety requirements. Typically, EWPs may be obtained through the employee's supervisor or from the Human Resources Department.

### **Virginia Safety and Health Regulations**

The Virginia Occupational Safety and Health (VOSH) Program is the Commonwealth's counterpart to the federal Occupational Safety and Health Administration (OSHA) of 1970 (Public Law PL 91-596). The VOSH Program is responsible for enforcing occupational safety and the health laws and regulations in both the private and public sectors. Also, it provides free consultative, outreach and training services to encourage and provide assistance to Virginia's employers to enhance safety and health protections for their employees.

The agreement between the federal OSHA and VOSH gives the Commonwealth of Virginia the authority to regulate occupational safety and health within its jurisdiction for general industry,

construction, agriculture, and the public sector. Federal OSHA retains authority over the following Virginia industries: private sector maritime (shipyard, marine terminals, long shoring, gear certification), federal military facilities, as well as other federal enclaves where civil jurisdiction has been ceded by the State to the federal government. Federal OSHA jurisdiction is also retained with respect to federal government employers and employees; and over working conditions where a federal agency has exercised statutory authority to enforce safety and health standards.

Virginia Code Section 40.1-1 provides that the Virginia Department of Labor and Industry (DOLI) be responsible for administering and enforcing occupational safety and health activities within the Commonwealth. Within DOLI, regulation of Virginia occupational safety and health falls under the purview of the VOSH Program. The vast majority of the Virginia occupational safety and health standards are identical to federal OSHA standards.

### **Safety in Accordance With the *Waterworks Regulations***

While specific safety requirements are not called out in the *Waterworks Regulations*, it is implied in § 12VAC5-590-360. “Responsibilities of the owner” which states “...provide and maintain conditions...which will assure a high degree of capability and reliability to effect compliance ....” The *Regulations* mention safety in general, in § 12VAC5-590-450: “Waterworks operation comprises the constant operation and management of facilities and personnel. Consideration must be given to such factors as competent personnel, standards of water quality, plant maintenance and cleanliness, analytical laboratory control, operation and maintenance of plant equipment, plant records and safety...” Thus, the waterworks owner is responsible for safety at the waterworks.

The intent of this Fact Sheet is to provide the ODW field staff with sufficient awareness to safely conduct sanitary surveys or other inspections while at the same time be able to make a cursory evaluation of the waterworks safety program, if one exists, and to recommend the establishment of such programs when they are non-existent. All waterworks must have at a minimum some form of a safety program consistent with the scope of operations of the waterworks and with employee representation.

### **SAFETY PROGRAM COMPONENTS**

The safety program should have at least one objective: To prevent accidents. Accidents do not happen, they are caused. Oftentimes, we know how to do our job safely, but we just don’t always do it safely. They may be caused by the unsafe acts of operators or as a result of hazardous conditions or a combination of both. Management has its responsibilities for safety. Its main function is to set the tone and provide the training and funding for an effective safety program. When we perform sanitary surveys, the ODW field staff should briefly assess such safety programs and provide a perspective as to their usefulness in the sanitary survey report. A full evaluation of the safety programs is the domain of the VOSH and OSHA inspectors and not the ODW. There are essentially seven major parts to a safety program:

#### **1. Management Responsibilities**

These responsibilities may be the domain of one or more assigned persons. Activities are not limited to the following:

- Establish a safety policy;
- Assign “functional” responsibility for accident prevention to include duties:

- Safety officer.
- Department heads/Line supervisors.
- Safety committee.
- Operators.
- Appoint safety officer.
- Establish realistic goals and keep an up-to-date program.
- Evaluate results of the program and revise as necessary.
- Provide education and training to the employees.

## **2. Employee Responsibilities**

General employee responsibilities include but not limited to the following:

- Perform jobs in accordance with established safety procedures.
- Recognize responsibility for own or “personal” safety as well as for fellow operators.
- Report all injuries.
- Report all observed hazards.
- Actively participate in the safety programs.

## **3. Safety Program Topics**

Written safety and health plans are an important part of a company’s safety and health program. Typically, safety programs are customized in accordance with the nature of the business/operation. Specific information such as persons responsible for implementing the safety and health program, hazards specific to the operation, personal protective equipment (PPE) that is utilized, evacuation routes and procedures, and much more are included. The following are some topics that may be selected and tailored towards a safety and health program associated with a waterworks where applicable.

<b>Topics That Are Likely To be Considered for Inclusion in a Safety Program.</b>	
Coatings	MSDS (Materials Safety Data Sheets)
Confined Spaces	Operator Responsibilities
Contacting VOSH/OSHA	Overhead Cranes
Corrosive Chemicals	Personal Protective Equipment (PPE)
Disciplinary Policies	Program Updates
Electrical Safety (Basics)	Protective Clothing
Emergency Action Plan	Respiratory Protection
Environmental Hazards	Safety Around Storage Tanks
Equipment Guards	Safety Around Unit Processes
Ergonomics	Safety Committee
Fire Hydrants & Flushing	Safety Devices
Fire Safety Provisions	Scaffolding
First Aid	Signage
Handling and Lifting	Signage & Notices
Hazard Communication	Slips/Falls
In-Plant Rail Safety	Tagout - Electrical Safety
Ladder Safety	Training & Meetings
Lockout - Electrical Safety	Trenching & Excavation
Management Responsibilities	Unsafe Acts
Mobile Equipment	Vehicular Safety
Monitoring Equipment	Working Near Noise

In reviewing the waterworks safety program, for example during a sanitary survey, the ODW staff should be able to recognize these elements and recommend the addition of obvious beneficial topics before “checking the box” on the sanitary survey report. Remember that safety inspections are the domain of the VOSH and/or OSHA inspectors. However, any observed situation that appears to be unsafe for the ODW inspector and waterworks operator must be documented and brought to the attention of the waterworks owner for correction or resolution. Only in extreme recalcitrant situations will the ODW contact the VOSH. The Field Director must be engaged in these situations.

#### **4. Potential Hazards**

Typical hazards may arise from or are associated with the following:

- Noise exposure (exceeding permissible levels).
- Fumes, vapors, gases, dusts, & mists.
- Problems with sanitation facilities.
- Problems with or lack of ventilation.
- Problems with or lack of illumination (lighting).
- Walking and working surfaces.
- Housekeeping.
- Egress.
- Color coding.
- Accident signage and tags.
- Electrical equipment.
- Boilers and elevators.
- Fire protection systems.
- Temporary heating devices.
- Barricades.
- Coating and paints.
- Material handling equipment.
- Storage and safety handling.
- Mechanized equipment.
- Chemicals.
- Machine guards.
- Excavation, trenching, and shoring.
- Confined space entry.
- Ladders.

#### **5. Unsafe Acts**

Some of the principal reasons for unsafe acts include but not limited to the following:

- **Ignorance** – lack of experience or training, or a temporary situation that prevents the recognition of a hazard.
- **Indifference** – knowing the right thing to do but don’t care, resulting in unnecessary risks by disregarding the rules or instructions.
- **Poor Work Habits** – learning or developing the wrong way of doing things.
- **Laziness** – reducing the level of safety in your work performance.

- **Haste** – working too fast and ignoring safety rules or taking dangerous shortcuts can most likely result in injury.
- **Poor Physical Condition** – not being healthy and fit resulting in a diminished alertness and vulnerability to accident/injury.
- **Temper** – impatience and anger can interfere with our thinking and could result in accident/injury.

The ODW field staff should be aware of these unsafe acts on a personal level, and be able to recognize when these acts are imminent in the waterworks and with its operating personnel.

## **6. Vehicular Safety**

Anyone operating and is responsible for a motor vehicle must follow the existing rules and regulations that apply to the operation of that particle motor vehicle.

## **7. Chemicals**

A corrosive chemical is any chemical that may destroy a person's skin or eyes. It may be either an acid or a base (alkali). The "acids" with the low pH values are the most corrosive; e.g., hydrochloric acid (HCl), nitric acid (HNO<sub>3</sub>), and sulfuric acid (H<sub>2</sub>SO<sub>4</sub>) are amongst the strongest acids. A "base" with the highest pH values are the most corrosive. Sodium hydroxide (NaOH) is a strong base. Through the Materials Safety Data Sheets (MSDS), field staff should become familiar with the types of chemicals used in a waterworks, particularly the ones that are corrosive.

Safety procedures must be followed in the handling and usage of all chemicals. Safety protection equipment (including clothing) must be used at all times to protect eyes and skin. Safety showers and eye/face wash should be installed at a location close to where any corrosive chemical is being used, and they should be tested often (e.g., weekly) to ensure readiness and working condition providing clean (e.g., non-rusty) water.

## **EMPLOYEE "RIGHT-TO-KNOW" LAWS**

Employee "right-to-know" laws have been implemented to require employers to inform employees (e.g., operators) of the possible health effects resulting from contact with hazardous substances. Employers must provide operators with information regarding any hazardous substances that the operators might be exposed to under either normal work conditions or reasonably foreseeable emergency conditions resulting from work place conditions. Information regarding hazardous substances is available from the chemical manufacturers in the form of Safety Data Sheets (SDS) for hazardous substances. Employers must provide operators access to these SDS and also train operators to work safely with all hazardous substances that are encountered in the workplace.

The employee has the right to know if he is working with any hazardous substances, the health implications resulting from contact with such substances, access to SDS, and receive appropriate training for working safely with these hazardous substances.

## **SIGNAGE & NOTICES**

Approved caution and other appropriate signs should be used where necessary to call attention to potential hazards or remind operators to use caution or to use safety equipment.

## **MONITORING EQUIPMENT**

There are many locations in a water utility where it is necessary to monitor the atmosphere before entering, such as underground vaults, manholes, tanks, trenches, and other confined spaces. Always test for dangerous air contamination and oxygen deficiency with approved devices and strictly follow established procedures while conducting work.

## **PERSONAL PROTECTIVE EQUIPMENT**

Personal protective equipment (PPE) is required for the protection of operators. Some clothing may be the responsibility of each operator and other protective equipment may be supplied by the water utility. Typical equipment may include but not limited to the following:

- Safety shoes.
- Safety glasses.
- Safety (hard) hats.
- Ear plugs.
- Safety goggles.
- Face shields.
- Respirators and masks.
- Gloves.
- Safety aprons.
- Safety belts or harnesses.
- Protective clothing (e.g., coats and suits).
- Reflective vests.

## **SLIPS AND FALLS**

All floors should be level and kept as slip resistant as possible. Floors should be free of all debris. Materials that drips or spills can be collected in drip pans, appropriate gutters, or splash guards may be used to deflect drips. If liquids do get on floors, nonflammable absorbent materials should be available for cleanup. Good housekeeping and maintenance go hand-in-hand to prevent slips and falls. If water and/or chemicals spill on the floor, they should be cleaned up as soon as possible. Catwalks or safety thread may be necessary on floors to prevent slips and falls, where water or chemicals are commonly spilled. All stairways and elevated catwalks should have safety railings.

## **HANDLING AND LIFTING**

Common handling injuries such as strains, sprains, fractures, bruises, back injuries, and hernias are caused primarily by unsafe work practices. Safety procedures and equipment when necessary should be used where applicable to help protect the hands, feet, and other parts of the body.

## **ELECTRICAL SAFETY**

Whenever work is being done on electrical equipment (e.g., panels, breakers, etc.) or equipment that is run by electric motors, be sure to lockout and tag all of the electrical switches. Never remove a tag or lockout device installed by another person/operator. Do not stand in water when working on electrical equipment. Only properly trained personnel should be allowed to work around or troubleshoot electrical and instrumentation systems.

## **APPLICATION OF COATINGS**

Special consideration must be used in preparation of surfaces for coatings due to potential exposure to lead or silica laden dust and in the application of coatings to prevent exposure to the paint and related solvents during the application and curing process. Waterworks must exercise care in selecting the proper type of coatings, such as coatings meeting NSF/ANSI Standard 61 for use on surfaces in contact with drinking water. In addition to the selection of the coatings, the application procedures, especially for internal surfaces (or indoors), are also important and the curing time is essential for proper results.

## **SAFETY AROUND UNIT OPERATIONS, STORAGE FACILITIES, WELLS, AND INTAKES**

Safety control around these areas is necessary to prevent injury, contamination, or pollution. Safety and good housekeeping will help prevent accidents to operators or employees working near or in the vicinity of the unit operations, wells, and intakes. The operator has the responsibility to preserve these locations “as safe” through preventive maintenance.

## **CONFINED SPACES**

There are specific regulations by VOSH and OSHA regarding entering a confined space. A confined space has all three of the following:

- Is large enough for a person to enter and perform assigned work.
- Has entry and exits that may be limited in size or number.
- Is not designed for continuous occupancy.

Typical confined space hazards include but not limited to the following:

- Poor atmospheric conditions.
- Electrical problems with the underground equipment.
- Possibility of falling.
- Drowning due to significant water accumulation in the pit.
- Presence of insects and small animals.
- Entry without the appropriate self-contained breathing apparatus.
- Operating machinery (with possible pinch points and unguarded rotating elements).

An entry permit to enter a confined space is needed if the confined space, as defined above, also has any one of the following characteristics:

- Contains or has potential to contain a hazardous atmosphere.
- Contains a material with potential for engulfment.
- Has the potential to trap or asphyxiate.
- Contains any other recognized safety or health hazard.
- Is any open surface tank deeper than 4 feet.

Most manholes, vaults, tanks, pits, etc. are permit-required confined spaces. If the vault and other similar spaces is more than 4 feet deep, OSHA requires that if any part of your body breaks the plane of the opening then an entry permit is needed. Generally speaking, an entry permit will

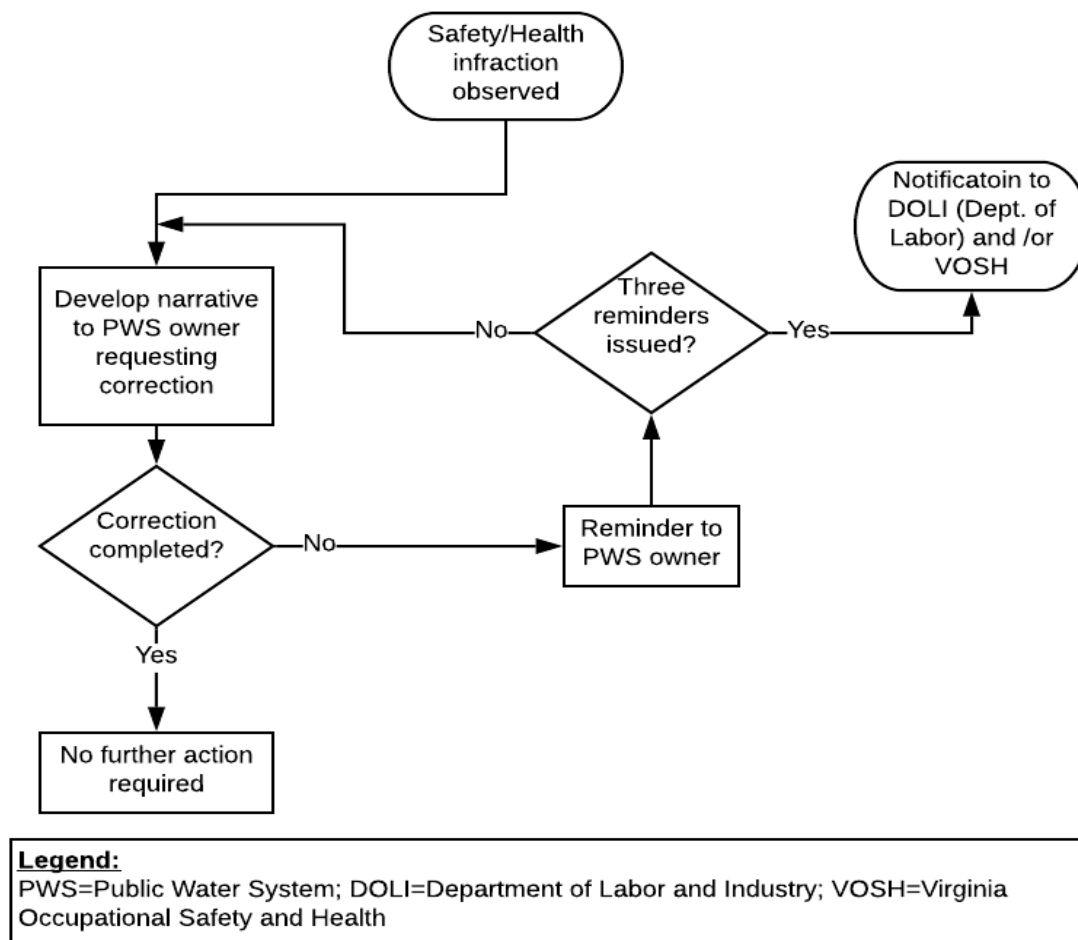


require that gas monitoring readings for oxygen, toxic gases, and combustibles be collected. In addition, the person who enters (entrant) will wear a harness and be attached to a mechanically assisted retrieval mechanism such as a lifting winch, mounted on a tripod. The retrieval mechanism must be rated for 5,000 pounds lifting capacity. A second person called the attendant is required at the entry point who is in constant communication with the entrant. All electrical and mechanical devices are tagged and "locked out" for example, pumps, motors, and electrical panel boxes. The gas readings are collected before the lid or cover is opened (around the cover) and then continuously by the entrant while working in the permit-required confined space.

The ODW field staff conducting waterworks and other facility inspections are to be aware of these permit requirements for confined space entry procedures and not enter such spaces. Such information should be provided by the waterworks owner based on the use of professional services and corroborated by appropriate documentation as to the scope of the completed work.

### **SAFETY AND MAINTENANCE WORK**

Maintenance work should only begin when the designated work area has been examined and secured as safe before starting the maintenance work. All appropriate safety precautions must be in place, such as guard rails, proper signage, etc. While this is the responsibility of the waterworks owner, it will serve the ODW staff well if the hazards can be recognized and avoided, but included in the inspection report. In such situations, the waterworks owner should be notified and any follow-up action be made in a timely manner in accordance with the guidance in Flow Chart 1.



*Flow Chart 1. Typical Pathways for Resolving a Safety Infraction.*

**MATERIAL SAFETY DATA SHEET (MSDS)**

Safety data sheets (SDS) are documents that list information relating to occupational safety and health for the use of various substances and products, such as drinking water treatment chemicals. Typical information may include instructions for the safe use and potential hazards associated with a particular material or product, along with spill-handling procedures, focusing primarily on the hazards of working with the material in an occupational setting. There is also a duty to properly label substances on the basis of physio-chemical, health, or environmental risk. Labels can include hazard symbols. The formulation and hazard nature of a product using a generic name may vary between manufacturers in the same country.

In the U.S., the OSHA requires that safety data sheets be readily available to all employees (e.g., waterworks operators) for potentially harmful substances handled in the workplace under the “Hazard Communication” regulation. The SDSs are also required to be made available to local fire departments and local and state emergency planning officials under Section 311 of the Emergency Planning and Community Right-to-Know Act. The American Chemical Society defines Chemical

Abstracts Service Registry Numbers (CAS numbers) which provide a unique number for each chemical and are also used internationally in SDSs.

### **ODW COLLABORATION WITH VOSH AND OSHA**

Ordinarily, ODW should NOT have cause to contact VOSH and /or OSHA. However, if there are blatant safety violations that go unaddressed despite numerous requests (see Flow Chart 2), ODW may contact the Compliance Safety and Health Officer to lodge a complaint. Following this, VOSH will investigate and take the necessary corrective actions.

### **COMPLIANCE SAFETY AND HEALTH OFFICER**

The Compliance Safety and Health Officer (Compliance Officer or CSHO) within VOSH has the primary responsibility to carry out the mandate of the Commissioner and the Department of Labor and Industry (DOLI) “to assure so far as possible every working man and woman in the Commonwealth have safe and healthful working conditions....” as required by § 40.1-51.1.A. of the *Code of Virginia*. This is the point of contact for every employer/employee whenever an issue of safety and health needs to be addressed.

### **HOW TO FILE A VOSH COMPLAINT**

The Occupational Safety and Health Laws of Virginia give employees the right to file complaints about workplace safety and health hazards. Furthermore, these laws give complainants the right to request that their names not be revealed to their employers. Complaints from employees and their representatives are taken very seriously by VOSH.

### **EVALUATING SAFETY AND HEALTH HAZARDS**

For field staff working in the field, it is important to be able to recognize all environmental safety and health hazards. By so doing, the ODW staff can determine a “sense” of the extent and effectiveness to which the employer’s safety program covers the precautions to be taken. Some typical questions to be considered and discussed with the appropriate personnel include but not limited to the following:

- Exposure to actual or potential hazardous conditions or substances?
- Engineering controls in the work area(s) in which the exposed employees work? (Engineering controls consist of substitution, isolation, ventilation, and equipment modification).
  - *Substitution* may involve process change, equipment replacement, or material substitution.
  - *Isolation* results in the reduction of the hazard by providing a barrier around the material, equipment, process, or employee. This barrier may consist of a physical separation or isolation by distance.
  - *Ventilation* controls are more fully discussed in the OSHA Technical Manual.
  - *Equipment modification* will result in increased performance or change in character, such as the application of sound absorbent material.

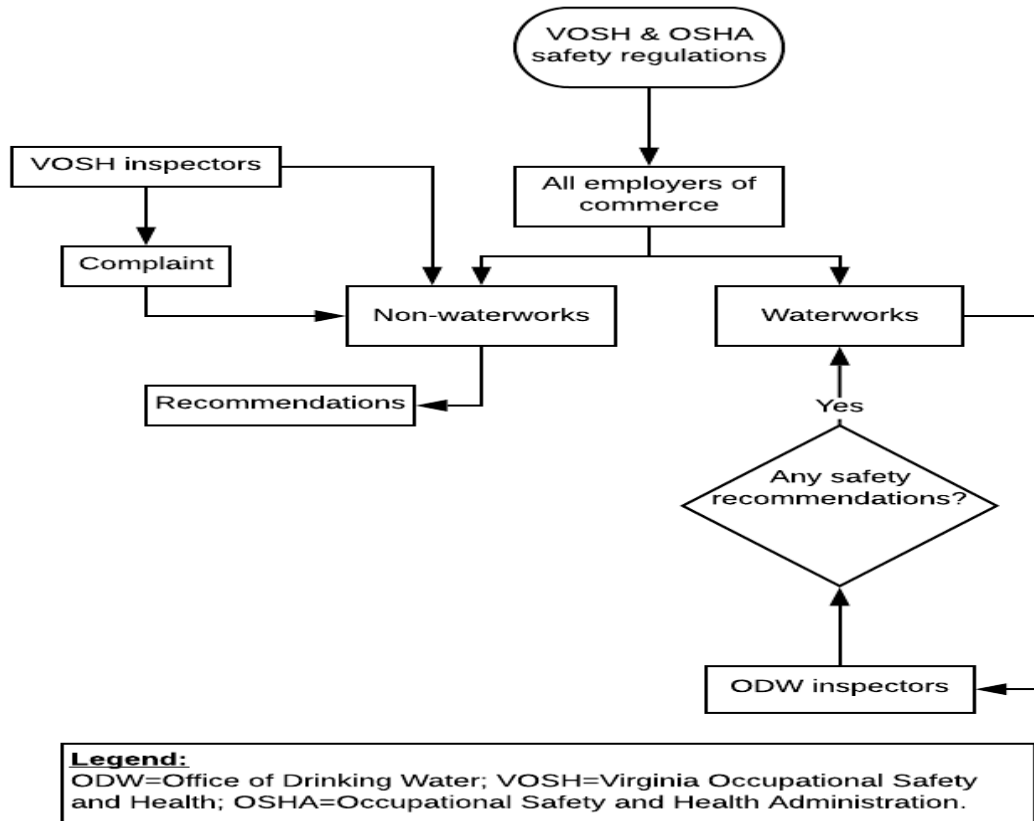
- Administrative or work practice controls? Work practice controls are a type of administrative control by which the employer modifies the manner in which the employee performs assigned work. Such modification may result in a reduction of exposure through such methods as changing work habits, improving sanitation and hygiene practices, or making other changes in the way the employee performs the job.
- Excessive noise in the work place?
- Emergency procedures and inspection schedules for emergency PPE?
- The program for the selection, use, and maintenance of routine PPE?
- The overall quality and extent of the educational, safety, and health training program and the degree of employee participation?
- Perimeter guardrails?
- Respiratory protection?
- Personal protection equipment (PPE)?
- Electric panel boxes and safety of the electrical equipment?
- Guarding of rotating mechanisms?

The Virginia Department of Labor and Industry (DOLI) administers the programs for VOSH, Registered Apprenticeship, Boiler and Pressure Vessel Safety and Labor and Employment Law. Hydropneumatic storage tanks will fall under the DOLI program.

Unplanned safety and health enforcement inspections are conducted in response to accidents, employee complaints and referrals; while planned inspections occur through special emphasis inspection programs and randomly scheduled inspections of high-hazard industries. The VOSH Program also issues permits for lead and asbestos abatement projects, conducts inspections, and administers the laws affecting emission of these pollutants.

### **VOSH CONSULTATION SERVICES**

To help employers better understand and voluntarily comply with VOSH Standards, DOLI provides free, on-site consultation services without issuing citations or penalties. This program helps employers identify and correct potential safety and health hazards through an agreement between the employer and VOSH. Assistance in developing an effective safety and health program for the employer is also provided.



*Flow Chart 2. Inter-Relationship between Safety Regulations and the Waterworks.*

**FM-C5-Attachment 2. Risk Assessment Template.**

**TYPES OF HAZARDS**

**Access**

Congested area, Uneven ground, Confined Space, Overhead obstruction, Objects in walkway, Unsecured decking, Clutter, High Work

**Caught In/Struck By**

Sharp objects, Pinch points, Hot/cold surfaces, Open holes, Overhead workers, Struck-by Objects, Strike against objects, Fire/spark

**Environment**

Noise, Dust, Weather, Lighting, Heat, Wet areas, Wind, Plant processes, Lead, Asbestos, Hot/Cold surface, Heat Stress

**Ergonomic**

Bad body position, Improper or static body position (awkward objects or work position), Excessive force (heavy objects, torque), Excessive repetition, Excessive duration, Over-reaching

**Falls**

To a lower level, At the same level, Slippery surface, Floor or wall opening, Unprotected perimeter, Climbing/Relocating

**Hazardous Material**

Burns, Exposure, Inhalation, Splashing, Fumes, Spills, Airborne Particles, Trapped substances, Lead, Asbestos

**Stored Energy**

Pressure, Tension, Electrical, Combustible, Flammable/Explosion, Static electricity, Pneumatic, Chemical

**Tools/Equipment**

Airborne particles, Fumes, Arc flashes, Sharp edges, Line of fire, Wrong tool for the job, Broken tools, Rotating parts, Vibration, Shock

**PERMIT REQUIREMENTS**

**Y N/A PERMIT REQUIRED**

- General (Safe) Work – No permit required
- Hot (flame/spark) Work occurring
- Live Electrical(NFPA 70E ) Work occurring
- Confined Space Entry required?
- Other: \_\_\_\_\_

**Y N/A PROCESS REQUIREMENTS**

- Job scope understood
- LO/TO verified
- SDS reviewed
- Lines drained/purged
- Low points checked
- Oxygen/Flammability check verified
- Line identification reconfirmed
- Close drain/vents when finished
- Initial entry procedure reviewed
- Confined Space Procedure/Rescue Plan Reviewed
- Tool/Equipment proper for job and in safe condition
- Communicated work with others in area
- Is High work/ Climbing required?
- Other: \_\_\_\_\_

**PPE ASSESSMENT**

- Hardhat/Bump Cap
- Goggles
- Gloves: \_\_\_\_\_
- Safety glasses  Face shield
- Clothing: \_\_\_\_\_
- Safety shoes  Ear Plugs
- Face protection  Respirator
- Other: \_\_\_\_\_

**Hazard/Risk Analysis**

Today's  
Date: \_\_\_\_\_ Time: \_\_\_\_\_

Name: \_\_\_\_\_

Waterworks to Be Inspected: \_\_\_\_\_

Area to Be Inspected: \_\_\_\_\_

I have been employed less than 90 days and I am considered an at risk employee. Yes \_\_\_ No \_\_\_

Waterworks/Location Host: \_\_\_\_\_

My evacuation point is:

Location of eye wash/shower station: \_\_\_\_\_

# EXAMPLE 1

## TYPES OF HAZARDS

### Access

Congested area, Uneven ground, Confined Space, Overhead obstruction, Objects in walkway, Unsecured decking, Clutter, High Work

### Caught In/Struck By

Sharp objects, Pinch points, Hot/cold surfaces, Open holes, Overhead workers, Struck-by Objects, Strike against objects, Fire/spark

### Environment

Noise, Dust, Weather, Lighting, Heat, Wet areas, Wind, Plant processes, Lead, Asbestos, Hot/Cold surface, Heat Stress

### Ergonomic

Bad body position, Improper or static body position (awkward objects or work position), Excessive force (heavy objects, torque), Excessive repetition, Excessive duration, Over-reaching

### Falls

To a lower level, At the same level, Slippery surface, Floor or wall opening, Unprotected perimeter, Climbing/Relocating

### Hazardous Material

Burns, Exposure, Inhalation, Splashing, Fumes, Spills, Airborne Particles, Trapped substances, Lead, Asbestos

### Stored Energy

Pressure, Tension, Electrical, Combustible, Flammable/Explosion, Static electricity, Pneumatic, Chemical

### Tools/Equipment

Airborne particles, Fumes, Arc flashes, Sharp edges, Line of fire, Wrong tool for the job, Broken tools, Rotating parts, Vibration, Shock

## PERMIT REQUIREMENTS

### Y N/A PERMIT REQUIRED

- (X) ( ) General (Safe) Work – No permit required
- ( ) (X) Hot (flame/spark) Work occurring
- ( ) (X) Live Electrical(NFPA 70E ) Work occurring
- ( ) (X) Confined Space Entry required?
- ( ) Other: \_\_\_\_\_

### Y N/A PROCESS REQUIREMENTS

- (X) ( ) Job scope understood
- ( ) (X) LO/TO verified
- (X) ( ) SDS reviewed
- ( ) (X) Lines drained/purged
- ( ) (X) Low points checked
- ( ) (X) Oxygen/Flammability check verified
- ( ) (X) Line identification reconfirmed
- ( ) (X) Close drain/vents when finished
- ( ) (X) Initial entry procedure reviewed
- ( ) (X) Confined Space Procedure/Rescue Plan Reviewed
- (X) ( ) Tool/Equipment proper for job and in safe condition
- (X) ( ) Communicated work with others in area
- ( ) (X) Is High work/ Climbing required?
- ( ) Other: \_\_\_\_\_

### PPE ASSESSMENT

- ( ) Hardhat/Bump Cap
- ( ) Goggles
- (X) Gloves: \_\_\_\_\_
- ( ) Safety glasses ( ) Face shield
- ( ) Clothing: \_\_\_\_\_
- (X) Safety shoes ( ) Ear Plugs
- ( ) Face protection ( ) Respirator
- ( ) Other: \_\_\_\_\_

## Hazard/Risk Analysis

Today's Date: \_\_\_\_\_ Time: \_\_\_\_\_

Name: \_\_\_\_\_

Waterworks to Be Inspected: Groundwater or Consecutive waterworks

Area to Be Inspected: Well, well house/enclosure, master meter, hydropneumatic tank, atmospheric storage tank, chemical solution crock, metering pump(s), pump(s)

I have been employed less than 90 days and I am considered an at risk employee. Yes \_\_\_ No \_\_\_

Waterworks/Location Host: \_\_\_\_\_

( ) My evacuation point is: \_\_\_\_\_

( ) Location of eye wash/shower station: \_\_\_\_\_

# EXAMPLE 2

## TYPES OF HAZARDS

### Access

Congested area, Uneven ground, Confined Space, Overhead obstruction, Objects in walkway, Unsecured decking, Clutter, High Work

### Caught In/Struck By

Sharp objects, Pinch points, Hot/cold surfaces, Open holes, Overhead workers, Struck-by Objects, Strike against objects, Fire/spark

### Environment

Noise, Dust, Weather, Lighting, Heat, Wet areas, Wind, Plant processes, Lead, Asbestos, Hot/Cold surface, Heat Stress

### Ergonomic

Bad body position, Improper or static body position (awkward objects or work position), Excessive force (heavy objects, torque), Excessive repetition, Excessive duration, Over-reaching

### Falls

To a lower level, At the same level, Slippery surface, Floor or wall opening, Unprotected perimeter, Climbing/Relocating

### Hazardous Material

Burns, Exposure, Inhalation, Splashing, Fumes, Spills, Airborne Particles, Trapped substances, Lead, Asbestos

### Stored Energy

Pressure, Tension, Electrical, Combustible, Flammable/Explosion, Static electricity, Pneumatic, Chemical

### Tools/Equipment

Airborne particles, Fumes, Arcflashes, Sharp edges, Line of fire, Wrong tool for the job, Broken tools, Rotating parts, Vibration, Shock

## PERMIT REQUIREMENTS

### Y N/A PERMIT REQUIRED

- (X) ( ) General (Safe) Work – No permit required
- ( ) (X) Hot (flame/spark) Work occurring
- ( ) (X) Live Electrical(NFPA 70E ) Work occurring
- ( ) (X) Confined Space Entry required?
- ( ) (X) Other: \_\_\_\_\_

### Y N/A PROCESS REQUIREMENTS

- (X) ( ) Job scope understood
- ( ) (X) LO/TO verified
- (X) ( ) SDS reviewed
- ( ) (X) Lines drained/purged
- ( ) (X) Low points checked
- ( ) (X) Oxygen/Flammability check verified
- ( ) (X) Line identification reconfirmed
- ( ) (X) Close drain/vents when finished
- ( ) (X) Initial entry procedure reviewed
- (X) ( ) Confined Space Procedure/Rescue Plan Reviewed
- (X) ( ) Tool/Equipment proper for job and in safe condition
- (X) ( ) Communicated work with others in area
- (X) ( ) Is High work/ Climbing required?
- (X) Other: \_\_\_\_\_

### PPE ASSESSMENT

- ( ) Hardhat/Bump Cap
- ( ) Goggles
- (X) Gloves: \_\_\_\_\_
- (X) Safety glasses ( ) Face shield
- ( ) Clothing: \_\_\_\_\_
- (X) Safety shoes (X) Ear Plugs
- ( ) Face protection ( ) Respirator
- ( ) Other: \_\_\_\_\_

## Hazard/Risk Analysis

Today's Date: \_\_\_\_\_ Time: \_\_\_\_\_

Name: \_\_\_\_\_

Waterworks to Be Inspected: Surface Water WTP

Area to Be Inspected: Raw water intake, rapid mix, flocculators, sedimentation basins, filtration, clearwell, pumps, chemical tanks, metering pumps, chlorine gas storage, waste handling, lab

I have been employed less than 90 days and I am considered an at risk employee. Yes \_\_\_ No \_\_\_

Waterworks/Location Host: \_\_\_\_\_

( ) My evacuation point is: \_\_\_\_\_

( ) Location of eye wash/shower station: \_\_\_\_\_

# EXAMPLE 3



**TYPES OF HAZARDS**

**Access**

Congested area, Uneven ground, Confined Space, Overhead obstruction, Objects in walkway, Unsecured decking, Clutter, High Work

**Caught In/Struck By**

Sharp objects, Pinch points, Hot/cold surfaces, Open holes, Overhead workers, Struck-by Objects, Strike against objects, Fire/spark

**Environment**

Noise, Dust, Weather, Lighting, Heat, Wet areas, Wind, Plant processes, Lead, Asbestos, Hot/Cold surface, Heat Stress

**Ergonomic**

Bad body position, Improper or static body position (awkward objects or work position), Excessive force (heavy objects, torque), Excessive repetition, Excessive duration, Over-reaching

**Falls**

To a lower level, At the same level, Slippery surface, Floor or wall opening, Unprotected perimeter, Climbing/Relocating

**Hazardous Material**

Burns, Exposure, Inhalation, Splashing, Fumes, Spills, Airborne Particles, Trapped substances, Lead, Asbestos

**Stored Energy**

Pressure, Tension, Electrical, Combustible, Flammable/Explosion, Static electricity, Pneumatic, Chemical

**Tools/Equipment**

Airborne particles, Fumes, Arcflashes, Sharp edges, Line of fire, Wrong tool for the job, Broken tools, Rotating parts, Vibration, Shock

**PERMIT REQUIREMENTS**

**Y N/A PERMIT REQUIRED**

- (X) ( ) General (Safe) Work – No permit required
- ( ) (X) Hot (flame/spark) Work occurring
- ( ) (X) Live Electrical(NFPA 70E ) Work occurring
- ( ) (X) Confined Space Entry required?
- ( ) Other: \_\_\_\_\_

**Y N/A PROCESS REQUIREMENTS**

- (X) ( ) Job scope understood
- ( ) (X) LO/TO verified
- (X) ( ) SDS reviewed
- ( ) (X) Lines drained/purged
- ( ) (X) Low points checked
- ( ) (X) Oxygen/Flammability check verified
- ( ) (X) Line identification reconfirmed
- ( ) (X) Close drain/vents when finished
- ( ) (X) Initial entry procedure reviewed
- ( ) (X) Confined Space Procedure/Rescue Plan Reviewed
- (X) ( ) Tool/Equipment proper for job and in safe condition
- (X) ( ) Communicated work with others in area
- ( ) (X) Is High work/ Climbing required?
- ( ) Other: \_\_\_\_\_

**PPE ASSESSMENT**

- ( ) Hardhat/Bump Cap
- ( ) Goggles
- (X) Gloves: \_\_\_\_\_
- ( ) Safety glasses ( ) Face shield
- ( ) Clothing: \_\_\_\_\_
- (X) Safety shoes ( ) Ear Plugs
- ( ) Face protection ( ) Respirator
- ( ) Other: \_\_\_\_\_

Hazard/Risk Analysis

Today's Date: \_\_\_\_\_ Time: \_\_\_\_\_

Name: \_\_\_\_\_

Waterworks to Be Inspected: TNC

Area to Be Inspected: Well, well house/enclosure, master meter, hydropneumatic tank, atmospheric storage tank, pump(s)

I have been employed less than 90 days and I am considered an at risk employee. Yes \_\_\_ No \_\_\_

Waterworks/Location Host: \_\_\_\_\_

( ) My evacuation point is: \_\_\_\_\_

( ) Location of eye wash/shower station: \_\_\_\_\_

**EXAMPLE 4**

**TYPES OF HAZARDS**

**Access**

Congested area, Uneven ground, Confined

**PERMIT REQUIREMENTS**

**Y N/A PERMIT REQUIRED**

Hazard/Risk Analysis

Space, Overhead obstruction, Objects in walkway, Unsecured decking, Clutter, High Work

**Caught In/Struck By**

Sharp objects, Pinch points, Hot/cold surfaces, Open holes, Overhead workers, Struck-by Objects, Strike against objects, Fire/spark

**Environment**

Noise, Dust, Weather, Lighting, Heat, Wet areas, Wind, Plant processes, Lead, Asbestos, Hot/Cold surface, Heat Stress

**Ergonomic**

Bad body position, Improper or static body position (awkward objects or work position), Excessive force (heavy objects, torque), Excessive repetition, Excessive duration, Over-reaching

**Falls**

To a lower level, At the same level, Slippery surface, Floor or wall opening, Unprotected perimeter, Climbing/Relocating

**Hazardous Material**

Burns, Exposure, Inhalation, Splashing, Fumes, Spills, Airborne Particles, Trapped substances, Lead, Asbestos

**Stored Energy**

Pressure, Tension, Electrical, Combustible, Flammable/Explosion, Static electricity, Pneumatic, Chemical

**Tools/Equipment**

Airborne particles, Fumes, Arcflashes, Sharp edges, Line of fire, Wrong tool for the job, Broken tools, Rotating parts, Vibration, Shock

- (X) ( ) General (Safe) Work – No permit required
- (X) ( ) Hot (flame/spark) Work occurring
- (X) ( ) Live Electrical(NFPA 70E ) Work occurring
- ( ) (X) Confined Space Entry required?
- ( ) (X) Other: \_\_\_\_\_

**Y N/A PROCESS REQUIREMENTS**

- (X) ( ) Job scope understood
- (X) ( ) LO/TO verified
- (X) ( ) SDS reviewed
- (X) ( ) Lines drained/purged
- ( ) (X) Low points checked
- ( ) (X) Oxygen/Flammability check verified
- (X) ( ) Line identification reconfirmed
- ( ) (X) Close drain/vents when finished
- (X) ( ) Initial entry procedure reviewed
- (X) ( ) Confined Space Procedure/Rescue Plan Reviewed
- (X) ( ) Tool/Equipment proper for job and in safe condition
- (X) ( ) Communicated work with others in area
- (X) ( ) Is High work/ Climbing required?
- (X) Other: \_\_\_\_\_

**PPE ASSESSMENT**

- (X) Hardhat/Bump Cap
- ( ) Goggles
- (X) Gloves: \_\_\_\_\_
- (X) Safety glasses ( ) Face shield
- ( ) Clothing: \_\_\_\_\_
- (X) Safety shoes (X) Ear Plugs
- ( ) Face protection ( ) Respirator
- ( ) Other: \_\_\_\_\_

Today's Date: _____ Time: _____
------------------------------------

Name: \_\_\_\_\_

Waterworks to Be Inspected: Construction of "WTP"

Area to Be Inspected: Raw water intake, rapid mix, flocculators, sedimentation basins, filtration, clear well, chlorine gas storage, waste handling, lab, water line, pumps, chemical mixing/storage

I have been employed less than 90 days and I am considered an at risk employee. Yes \_\_\_ No \_\_\_

Waterworks/Location Host: \_\_\_\_\_

( ) My evacuation point is: \_\_\_\_\_

( ) Location of eye wash/shower station: \_\_\_\_\_

FM-C7-Attachment 1. Level 1 Assessment Form.

Virginia Department of Health  
Office of Drinking Water (ODW)  
Waterworks Level 1 Assessment

Waterworks Name:		PWSID No.:		
Source Water Type:		City/County:		
Waterworks Type: <input type="checkbox"/> Community		Population Served:		
<input type="checkbox"/> Nontransient Noncommunity		<input type="checkbox"/> Seasonal		
<input type="checkbox"/> Transient Noncommunity		<input type="checkbox"/> Seasonal		
Owner:		Phone:		
Compliance Monitoring Period:				
<b>Number of Samples</b>	<b>Required</b>	<b>Collected</b>	<b>Total coliform present</b>	<b>E.coli present</b>
Routine per monitoring period				
Repeat				
Triggered source water				
Date ODW Notified Waterworks Level 1 Assessment Required:				
Assessment Due Date:				
Assessment Conducted Date:				
Reason Level 1 Assessment is required:				
1.	<input type="checkbox"/>	Two or more coliform present samples		
2.	<input type="checkbox"/>	Failure to collect all repeat samples (subsequent to coliform present sample)		
3.	<input type="checkbox"/>	Greater than 5% of samples are coliform present		

Waterworks Assessment Instructions

Consider each assessment element listed in the following evaluation form to determine if the element listed may have contributed to the “present” bacteriological sample results.

A response in a **highlighted** box suggests the assessment element may have contributed to the “present” bacteriological sample results and is a potential Sanitary Defect. Provide an explanation of why the highlighted element could have contributed to the “present” bacteriological sample results in the column titled “Describe any element of concern.” Use the “Additional Comments” space on page 4 of the form, if needed. Provide the date and description of Corrective Actions taken in the table on page 5. Provide a list of Additional Actions Needed for uncorrected sanitary defects in the table on page 5. List each item, in any box, by the assessment element number as identified in the first column. Notify the appropriate ODW field office, in writing, no later than seven days after completion of each corrective action, if a corrective action is listed in a submitted schedule.

Notes:

1. For wholesale and consecutive waterworks:
  - a. Review records related to flows, pressures, and water quality parameters at the connection(s) with the wholesale water supplier.
  - b. Consecutive waterworks owners shall notify the wholesale water supplier whenever the consecutive system has been triggered to perform a Level 1 Assessment.
  - c. Wholesale waterworks owners shall notify consecutive waterworks owners as total coliform bacteria could have spread to the consecutive waterworks distribution system.
2. The Level 1 Assessment must be completed based on data and documentation available to the waterworks operator and maintained on file by the waterworks. The completed Level 1 Assessment must be returned to the appropriate ODW-Field Office within 30 days of being notified that the assessment was triggered.

FM-C7-Attachment 1. Level 1 Assessment Form.

Virginia Department of Health  
Office of Drinking Water (ODW)  
Waterworks Level 1 Assessment

Waterworks Name:	PWSID No.:
------------------	------------

Assessment Elements		Response			Describe any element of concern	
		Y	N	N/A		
<b>1. Sample Site</b>						
1.1	Were all sites used listed on approved BSSP?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
1.2	Are the sample tap and the surrounding area clean?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
1.3	Describe sample tap fixtures (e.g., outdoor hose bib, indoor cold water faucet, etc.?)					Description:
1.4	Is the sample tap a swivel faucet?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
<b>2. Sample Collection Protocol</b>						
2.1	Was the sample collector properly instructed in collection procedures?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
2.2	Were taps flushed adequately (approx. 5 minutes)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
2.3	Were aerators removed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
2.4	Were sample containers sealed/unopened/untampered prior to use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
2.5	Were the sample containers/rim or cap contaminated during sampling?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
2.6	Were the taps disinfected?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
2.7	Were samples shipped/delivered per laboratory instruction?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
<b>3. Recent Operational Changes to the System</b>						
3.1	New/different/emergency well used?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
3.2	Changes in operation or treatment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
3.3	Any possible contamination events not directly related to operations?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
3.4	If seasonal system, was start-up initiated without flushing and disinfection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
3.5	Sites with low chlorine residual (<0.2 mg/L)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
3.6	Did power outages occur prior to "present" bacteria results?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
<b>4. Recent Distribution System Event That Might Introduce Contaminants</b>						
4.1	Low water pressure (<20 psi)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
4.2	Cross-connection problem	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
4.3	Pump station problem	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
4.4	Fire hydrants/blow off used	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
4.5	Line break/repair or nearby construction	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
4.6	Yard hydrants near sample location	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
4.7	Customer complaints about pressure, water quality prior to sampling?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		

FM-C7-Attachment 1. Level 1 Assessment Form.

Virginia Department of Health  
Office of Drinking Water (ODW)  
Waterworks Level 1 Assessment

Waterworks Name:	PWSID No.:
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Assessment Elements		Response			Describe any element of concern
		Y	N	N/A	
<b>5. Storage Tanks/Tank Sites</b>					
5.1	Are lot/tank ladder secured from unauthorized access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5.2	Are roof access hatches on atmospheric tanks locked and properly sealed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5.3	Are roof vents on atmospheric tanks properly sealed/screened?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5.4	Are structures water tight/without leak?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5.5	Any hole/damage in the tank structure that is not sleeved or protected?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5.6	Are drain and overflow line outlets screened?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5.7	Have tank(s) been serviced, repaired, or maintained recently?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5.8	Any recent unusual changes in tank water levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>6. Treatment Process Upsets Or Change Noted:</b>				<input type="checkbox"/>	
6.1	Has there been an interruption of treatment operations?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6.2	Are chemical solution containers uncovered?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6.3	Does building housing treatment equipment reflect poor house keeping	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6.4	Any chlorine residual <0.2 mg/L at entry point to distribution system?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6.5	Any turbidity values ≥ 0.3 NTU in water entering the distribution system?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6.6	Did treatment fail to continuously meet 4 log inactivation of viruses requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>7. Water Supply Well(s)</b>				<input type="checkbox"/>	
7.1	Is well house free of pests/vermin?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7.2	Is well cap and seal securely in place?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7.3	Is well casing vent properly screened?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7.4	Is electrical connection to pump secure and sealed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7.5	If there is an air release or screened pressure relief valve, is the release feature piped to grade?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7.6	Is the wellhead free of any cross-connections?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7.7	Any hoses left connected to a hose bib w/o a vacuum breaker in well house?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

FM-C7-Attachment 1. Level 1 Assessment Form.

Virginia Department of Health  
Office of Drinking Water (ODW)  
Waterworks Level 1 Assessment

Waterworks Name:	PWSID No.:
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Assessment Elements		Response			Describe any element of concern
		Y	N	N/A	
<b>7. Water Supply Well(s) cont.</b>				<input type="checkbox"/>	
7.8	Is the well pump blow-off line air gapped w/screened discharge?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
7.9	Any recent ponding or flooding around wellhead?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7.10	Is well site secure? (i.e. fenced, gate or building locked)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
7.11	Was a triggered source water sample result total coliform present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7.12	Has the well pump been replaced during the current monitoring period?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>8. Source – Surface/GUDI Water Supply</b>				<input type="checkbox"/>	
8.1	Has there been an incident of raw water turbidity ( $\geq 100$ NTU) within 14 days prior to sampling?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Typical turbidity ranges from ____ to ____.
8.2	Any sewage overflow, storm water discharge or construction excavation in the vicinity of the source within 14 days prior to sampling?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>9. Source – Spring(s)</b>				<input type="checkbox"/>	
9.1	Recent heavy rainfall, flooding event prior to sampling?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Typical turbidity ranges from ____ to ____.
9.2	Recent incident of water turbidity ( $\geq 100$ NTU) prior to sampling?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
9.3	Has there been any damage, change or repairs to the spring(s) infrastructure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
9.4	Have there been any unusual changes or incidents recently within the spring recharge area prior to the sampling event?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Additional Comments					

**FM-C7-Attachment 1. Level 1 Assessment Form.**

Virginia Department of Health  
Office of Drinking Water (ODW)  
Waterworks Level 1 Assessment

Waterworks Name:	PWSID No.:
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<b>Summary</b>	
Assessment Elements/Sanitary Defects	Corrective Action Taken and Date
Additional Actions Needed But Not Completed	
Action Needed	Completion Deadline:
<p>Conclusions:</p>  <p><input type="checkbox"/> A cause for the contamination was not determined.</p>	
<p>Assistance with assessment provided by:</p>  	
<p>Print name of person completing the form: _____</p>	
<p>Signature: _____</p>	<p>Date: _____</p>
<p>Print name of Waterworks Representative: _____</p>	
<p>Signature: _____</p>	<p>Date: _____</p>

**FM-C7-Attachment 1. Level 1 Assessment Form.**

Virginia Department of Health  
Office of Drinking Water (ODW)  
Waterworks Level 1 Assessment

Waterworks Name:	PWSID No.:
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Reserved for VDH-ODW Review			
	Response		Comments
	Yes	No	
1. Has assessment been completed?	<input type="checkbox"/>	<input type="checkbox"/>	
2. Was likely reason for TC+ occurrence found?	<input type="checkbox"/>	<input type="checkbox"/>	
3. Was assessment completed on time?	<input type="checkbox"/>	<input type="checkbox"/>	
4. Have all identified problems or sanitary defects been corrected by the waterworks?	<input type="checkbox"/>	<input type="checkbox"/>	
a. If 'No', has an acceptable schedule of corrective actions been provided?	<input type="checkbox"/>	<input type="checkbox"/>	
b. If a correction schedule is necessary, has schedule been entered into SDWIS?	<input type="checkbox"/>	<input type="checkbox"/>	

ODW Reviewer:

\_\_\_\_\_

(Print)

Date:

\_\_\_\_\_



**FM-C7-Attachment 2.** Notice of Level 1 Assessment Required.

**INSTRUCTIONS:** Complete/select items shown in *italics* and underlined, and convert to regular font. Staff may apply minor editorial judgment for situational correctness. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

**NOTICE of LEVEL 1 ASSESSMENT REQUIREMENT**

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner

Address 1

Address 2

City, State, Zip

Dear Waterworks Owner:

This notice is to advise you of requirements per Section 12VAC5-590-392 B 1 coliform treatment technique triggers and assessment requirements of the *Waterworks Regulations*. The subject waterworks generated a requirement to perform a Level 1 assessment and submit a completed Level 1 assessment form to this office. A Level 1 assessment is required whenever a waterworks has (two or more) (greater than 5.0 percent) total coliform-positive samples during a monitoring period; or, there is a failure to collect every required repeat sample after any total coliform-positive sample result.

[Select option for two or more total coliform-positive sample or >5.0% total coliform-positive samples]

Based on our records for the (Month)(# Calendar Quarter) year monitoring period, the subject waterworks had (number)(%) total coliform-positive samples. The total coliform-positive samples were collected at sample locations physical location/address on date(s), respectively.

[Option for failure to collect every required repeat sample]

Based on our records for the (Month)(# Calendar Quarter) year monitoring period, the subject waterworks failed to collect the proper number of repeat samples. The sample(s) collected from physical location/address on date(s) showed the presence of total coliform bacteria which required the collection of number repeat samples and number repeat samples were collected.

**Required Actions**

The following actions are required in accordance with Section 12VAC5-590-392 C of the *Regulations*:

- Perform a Level 1 assessment using the enclosed form.
- Submit the completed Level 1 assessment form to this office within 30 days from the date of this letter, on or before date.
- [Year round TNC Waterworks where applicable] Collect three routine samples in (month,year)
- [Year round TNC Waterworks where applicable] Initiate monthly routine bacteriological monitoring beginning (month,year) until further notice. (The waterworks Bacteriological Sample Siting Plan (BSSP) requires revision to reflect the

**FM-C7-Attachment 2.** Notice of Level 1 Assessment Required.

**INSTRUCTIONS:** Complete/select items shown in *italics* and underlined, and convert to regular font. Staff may apply minor editorial judgment for situational correctness. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

monitoring frequency.) (Attached is a revised BSSP reflecting the monitoring frequency revision. Please sign and return the Plan.) Subsequent to successfully completing all required activities, we will notify you when the monitoring frequency reverts back to quarterly monitoring frequency.

**Additional Information**

A Level 1 assessment evaluates conditions throughout the waterworks to determine possible causes for the total coliform-positive sample results. Sanitary defects (conditions that could provide a pathway of entry for microbial contamination into the distribution system) identified by the assessment are to be corrected and noted in the assessment. A schedule of corrective action(s) must be included in the assessment for defects not corrected by the above submittal due date.

This office will review the assessment for accuracy and completeness plus verify completion of any scheduled actions to correct sanitary defects. Notify this office, in writing, within one business day upon completion of each corrective action, if a corrective action is listed in a submitted schedule.

If you have any questions or concerns regarding this matter, or should you need any assistance in completing the Level 1 assessment form, please contact me at (phone number) or email at (email address).

Sincerely,

Name & Title

Field office name

ABC:xyz

Enclosure:

1. Level 1 Assessment Form
2. Revised BSSP

ec: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director

**FM-C7-Attachment 3. Level 2 Assessment Form.**

Virginia Department of Health  
Office of Drinking Water  
Waterworks Level 2 Assessment

Source Water Type:		City/County:	
Waterworks Type:	<input type="checkbox"/> Community	Population Served:	
	<input type="checkbox"/> Nontransient Noncommunity	<input type="checkbox"/> Seasonal	
	<input type="checkbox"/> Transient Noncommunity	<input type="checkbox"/> Seasonal	
Operator:			Phone:
Compliance Monitoring Period:			
<b>Number of Samples</b>	<b>Required</b>	<b>Collected</b>	<b>Total coliform present</b>
Routine per monitoring period			
Repeat			
Triggered source water			
Date ODW Notified Waterworks Level 2 Assessment Required:			
Assessment Due Date:			
Assessment Conducted Date:			
Waterworks Personnel Consulted For Assessment:			
1.		Phone:	
2.		Phone:	
ODW- FO Staff Conducting Assessment:			
Reason Level 2 Assessment is required			
1.	<input type="checkbox"/>	An <i>E.coli</i> maximum contaminant level (MCL) violation	
2.	<input type="checkbox"/>	A second Level 1 Assessment required within a rolling 12-month period	

**Waterworks Assessment Instructions**

Consider each assessment element listed in the following evaluation form to determine if the element listed may have contributed to the “present” bacteriological sample results.

A response in a highlighted box suggests the assessment element may have contributed to the “present” bacteriological sample results and is a potential Sanitary Defect. Provide an explanation of why the highlighted element could have contributed to the “present” bacteriological sample results in the column titled “Describe any element of concern.” Use the “Additional Comments” space on page 8, if needed, and always refer to the assessment element number.

Also, provide the date and description of Corrective Action taken on Page 9.

Notes:

1. For wholesale and consecutive waterworks:
  - a. Review records related to flows, pressures, and water quality parameters at the connection(s) with wholesale water supplier.
  - b. Consecutive waterworks owners shall notify wholesale water supplier whenever the consecutive system has been triggered to perform a Level 2 Assessment.
  - c. Wholesale waterworks owners shall notify consecutive waterworks owners as total coliform could have spread to the consecutive waterworks distribution system.
2. The Level 2 Assessment must be completed based on a site visit plus the data and documentation available and maintained on file by the waterworks and ODW-Field Office.

Virginia Department of Health  
Office of Drinking Water  
Waterworks Level 2 Assessment

Waterworks Name:	PWSID No.:
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Assessment Elements		Response			Describe any element of concern
		Y	N	N/A	
<b>1. Sample Site</b>					
1.1	Were all sites used listed on approved BSSP?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Description:
1.2	If the sample site is listed on the approved BSSP, does it remain an appropriate sample site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
1.3	Are the sample tap and the surrounding area clean?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
1.4	Describe sample tap fixture (e.g., outdoor hose bib, indoor cold water faucet, etc.)				
1.5	Is the sample tap fixture a swivel faucet?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.6	Is the sample tap location used regularly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
1.7	Any plumbing breaks or changes in vicinity of sample site or premise plumbing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.8	Are there any identified cross connections after the service connection or in premise plumbing? Describe if present.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.9	Were all of the backflow prevention devices at the sample location operational and maintained?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
1.10	Were there any low pressure events or changes in water pressure after the service connection or in the premise plumbing: immediately prior to sample? If yes, when?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.11	Are there any treatment devices after the service connection or in the premises of the sample site?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>2. Sample Collection Protocol</b>					
2.1	Was the sample collector properly instructed in collection procedures?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2.2	Were taps flushed adequately (approx. 5 minutes)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2.3	Were aerators removed?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2.4	Were sample containers sealed/unopened prior to use?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2.5	Were the sample containers/rim or cap contaminated during sampling?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.6	Were the taps disinfected?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2.7	Were samples delivered per laboratory instructions?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

Virginia Department of Health  
Office of Drinking Water  
Waterworks Level 2 Assessment

Waterworks Name:	PWSID No.:
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Assessment Elements		Response			Describe any element of concern
		Y	N	N/A	
<b>3. Events That May Have Caused a System Upset Prior to Collection of TC Samples</b>					
3.1	Have there been any operation and maintenance activities that could have introduced total coliforms / <i>E.coli</i> ?				
	a. Well #	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	b. Well Lot	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	c. Reservoir	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	d. Stream/River Intake	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	e. Treatment Plant / System	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	f. Distribution piping network	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	g. Pump Station	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	h. Storage tanks (atmospheric or pressure)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.2	Has there been a fire fighting event, flushing operation, sheared hydrant, etc.?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.3	Has there been any vandalism and/or unauthorized access to facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	a. Well #	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	b. Well Lot	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	c. Reservoir	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	d. Stream/River Intake	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	e. Treatment Plant / System	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	f. Distribution piping network	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	g. Pump Station	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	h. Storage Tanks (atmospheric or pressure)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.4	Are there any visible indicators of unsanitary conditions?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.5	Have there been any TC+ samples that were not compliance samples, including well or raw water samples?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.6	Have there been any low or inadequate disinfectant residual readings at the entry point or in the distribution system?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.7	Are there sites where it is historically difficult to maintain a residual without flushing?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.8	Have any other measured water quality parameters been out of normal ranges?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.9	Have there been any TC+ or E. coli results in the distribution system (esp. in the last 12 months)? Where?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.10	Did the water system receive any chlorine monitoring violations in the past 12 months? If yes, when?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.11	Have there been any reports of community illness suspected of being waterborne? (ODW/LHD)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Virginia Department of Health  
Office of Drinking Water  
Waterworks Level 2 Assessment

Waterworks Name:	PWSID No.:
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Assessment Elements		Response			Describe any Element of Concern
		Y	N	N/A	
<b>4. Recent Operational Changes To The System</b>					
4.1	Have any new approved, previously inactive or unapproved well sources been placed into service recently?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.2	Have any emergency or contingent/reserve well sources been placed into service recently?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.3	Is there evidence of any potential contamination from main breaks, low pressure, high turbidity, loss of disinfection, or other similar event?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.4	If seasonal, were there any problems during the most recent start-up procedure?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>5. Distribution System</b>					
5.1	System pressure: Is there evidence that the system experienced low or negative pressure prior to sampling? If yes, describe event and when it occurred.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5.2	Have there been any water main breaks or utility line construction in the vicinity of the sample site? If yes, when?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5.3	Pump stations				
	a. Have there been any mechanical, electrical, or operational problems?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	b. Are pump(s) currently operable?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
5.4	Pump maintenance service or repair in the last six (6) months?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5.5	Air valves upstream of the sample tap connection:				
	a. Is the air valve vault subject to flooding?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	b. Does the vent terminate below grade?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5.6	Have any fire hydrants in the vicinity of the sample tap connection been used recently?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5.7	Have any blow-offs in the vicinity of the sample tap been used recently?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5.8	Unauthorized access or use of the distribution system suspected or reported?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5.9	Backflow Prevention Devices				
	a. Are any backflow devices in service in the distribution system near tap?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	b. Are required inspections and certifications current?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
	c. Is the certification or serviceability of any backflow prevention device suspect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5.10	Was there any scheduled flushing of the distribution system? If yes, when?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5.11	Is there any evidence of intentional contamination in the distribution system?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5.12	Has there been a large variation in chlorine residual values in the system?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Virginia Department of Health  
Office of Drinking Water  
Waterworks Level 2 Assessment

Waterworks Name:	PWSID No.:
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Assessment Elements		Response			Describe any Element of Concern
		Y	N	N/A	
<b>5. Distribution System (contd.)</b>					
5.13	Have any unusual circumstances/incidents involving the water distribution system been observed or reported?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5.14	Authorized/unauthorized water haul trucks filled at any fire hydrant?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5.15	Yard hydrants near sample location?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5.16	Have there been any customer complaints about pressure and/or water quality prior to sampling?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>6. Treatment Process</b>				<input type="checkbox"/>	
6.1	Have there been any interruptions in treatment processes from power outages or other causes? If yes, provide details for which part, when and for how long?	<input type="checkbox"/>	<input type="checkbox"/>		
6.2	Is treatment equipment operational and maintained?	<input type="checkbox"/>	<input type="checkbox"/>		
6.3	Has there been any new equipment installation or repair of treatment equipment recently?	<input type="checkbox"/>	<input type="checkbox"/>		
6.4	Has useful life of filter media/cartridges expired?	<input type="checkbox"/>	<input type="checkbox"/>		
6.5	Have there been any recent changes in the treatment process (e.g., addition of a process, change in chemical or dosage)? If yes, provide details for the change and when it occurred?	<input type="checkbox"/>	<input type="checkbox"/>		
6.6	Was the free chlorine residual measured immediately downstream from the point of application adequate for chlorine contact time?	<input type="checkbox"/>	<input type="checkbox"/>		
6.7	Has the desired free chlorine residual goal and range been consistently achieved?	<input type="checkbox"/>	<input type="checkbox"/>		
6.8	Did a review of the filter turbidity profiles reveal any anomalies?	<input type="checkbox"/>	<input type="checkbox"/>		
6.9	Were there any failures in meeting the required chlorine contact time?	<input type="checkbox"/>	<input type="checkbox"/>		
6.10	Was any process flow loading rate above the rated capacity?	<input type="checkbox"/>	<input type="checkbox"/>		
6.11	Was there anything unusual about the settled water turbidity?	<input type="checkbox"/>	<input type="checkbox"/>		
6.12	Other observations on the treatment system?	<input type="checkbox"/>	<input type="checkbox"/>		
<b>7. Water Storage Tanks - Atmospheric</b>				<input type="checkbox"/>	
7.1	Are the vents properly protected and screened?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7.2	Are the storage facilities and sites secured to prevent unauthorized access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7.3	Are the roof access hatches properly designed as shoebox lids, have a proper gasket, sealed and locked against unauthorized access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Virginia Department of Health  
Office of Drinking Water  
Waterworks Level 2 Assessment

Waterworks Name:	PWSID No.:
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Assessment Elements		Response			Describe any Element of Concern	
		Y	N	N/A		
<b>7. Water Storage Tanks – Atmospheric (contd.)</b>					<input type="checkbox"/>	
7.4	Does the tank have a screened drain line, separate from the overflow line, discharging to the atmosphere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
7.5	Is the tank overflow outlet screened?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
7.6	Does the tank overflow line terminate above ground surface (air-gap) with a downward discharge screened end?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
7.7	Are there any unsealed openings in the storage facility, such as access doors, vents or joints, target float wire penetrations; cathodic protection/ ice free electrode holder penetrations in the tank roof or wall; have any leaks been observed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
7.8	Was any physical deterioration of the tank appurtenances (ladders, communications equipment, etc.) observed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
7.9	Could the physical condition of the tank be a possible source of contamination?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
7.10	Does the tank “float” on the distribution system?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
7.11	Are there separate inlet/outlet lines into the tank?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
7.12	Does the tank have an altitude valve assembly, air release assembly or other device associated with the tank inlet/outlet or fill/release line?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
<b>8. Water Storage – Hydropneumatic/Bladder Storage Tanks</b>						<input type="checkbox"/>
8.1	Are the pressure storage tanks maintaining an appropriate minimum pressure?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
8.2	Has proper O&M been performed per appropriate schedule?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
8.3	Any recent tank maintenance (i.e. interior inspection; painting/coating)? If yes, when?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
8.4	Is the measured free chlorine residual in the water exiting the storage tank detectable?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
8.5	Is there any evidence of intentional contamination to the pressure storage tank?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
8.6	Are there any other observations of the water storage facilities worthy of note?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
<b>9. Water Supply Well(s)</b>					<input type="checkbox"/>	
9.1	Is well house free of pests/vermin?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
9.2	Is exposed well casing free of rust/pitting or damage?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
9.3	Is well casing floor penetration sealed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		



Virginia Department of Health  
Office of Drinking Water  
Waterworks Level 2 Assessment

Waterworks Name:	PWSID No.:
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Assessment Elements		Response			Describe any Element of Concern
		Y	N	N/A	
<b>9. Water Supply Well(s) (contd.)</b>					
9.4	Wellhead with Sanitary Seal				
	a.	Is the sanitary seal intact and tightened down?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	b.	Is the seal properly vented and screened?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	c.	Are all other penetrations through the seal protected?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
9.5	Wellhead with Caps (pit-less adapter installations)				
	a.	Is the cap a PAS-97 watertight cap?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	b.	Is the watertight cap and gasket properly installed and evenly tightened?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	c.	Is the vent screen intact?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	d.	If the cap has been modified for any purpose, is the cap properly sealed and is any vent securely installed and screened?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.6	Is the well casing cover fitted to permit measurement of depth to water level?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		If yes, is the installation satisfactory?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
9.7	Does the well blowoff terminate with an approved air gap and screened end?		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
9.8	Are there any unprotected cross connections at the wellhead?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.9	Does the well casing extend 12-in. above grade?		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
9.10	Is there evidence of standing water near the wellhead?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	a.	In the wellhead enclosure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	b.	Around the concrete pad?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.11	Does the Well have a suitable 6 ft. x 6 ft. x 6" concrete pad in good condition?		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
9.12	Is the wellhead secured in a locked enclosure?		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
9.13	Have there been any sewer spills or other contamination activities in or around wellhead (within 50 ft.)?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Assessment Elements	Response	Describe any Element of Concern
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Virginia Department of Health  
Office of Drinking Water  
Waterworks Level 2 Assessment

Waterworks Name:	PWSID No.:
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		Y	N	N/A	
<b>9. Water Supply Well(s) (contd.)</b>					
9.14	Are there any aspects of well or wellhead construction whether compliant or non-compliant with the VA. <i>Waterworks Regulations</i> , that might affect bacteriological	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>10. Source – Surface Water Supply (Lake/Reservoir)</b>					
10.1	Have there been any sewer overflows, chemical spills or other disturbances into the source?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
10.2	Have there been any algal blooms?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
10.3	Has water turnover occurred?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
10.4	Has there been heavy rainfall, flooding, or rapid snowmelt in the past 60 days that have resulted in raw water turbidities exceeding 100 NTU?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
10.5	Any other surface water comments relevant to bacteriological quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>11. Source – Spring(s)</b>					
11.1	Recent heavy rainfall, flooding event within 7 days prior to sampling?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
11.2	Recent incident of raw water turbidity (≥100 NTU) within 14 days prior to sampling?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
11.3	Has there been any damage, change or repairs to the spring(s) infrastructure?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
11.4	Has there been any damage, change or repairs to the treatment processes used at the spring(s)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
11.5	Have there been any unusual changes or incidents within the spring drainage area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>12. Environmental Events</b>					
12.1	Have there been changes in the availability of water supply, such as a significant drop in water table, ground well levels in the wells, reservoir capacity, etc.?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
12.2	Have there been any extremes in heat or cold?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
12.3	Has there been an earthquake recently?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Additional Comments</b>					

Virginia Department of Health  
Office of Drinking Water  
Waterworks Level 2 Assessment

Waterworks Name:	PWSID No.:
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Summary	
Assessment Elements/Sanitary Defects	Corrective Action Taken and Date

Conclusions:

- Attach additional sheets as necessary
- A cause for the contamination was not found.

Assistance with assessment provided by:

		Yes	No	Comments
1.	Was likely reason for TC+ occurrence or <i>E.coli</i> violation found?	<input type="checkbox"/>	<input type="checkbox"/>	
2.	Have all identified problems or sanitary defects been corrected by waterworks?	<input type="checkbox"/>	<input type="checkbox"/>	
a.	If 'No', has an approved schedule to complete remaining corrections been developed and accepted by the waterworks? <u>See attachment</u>	<input type="checkbox"/>	<input type="checkbox"/>	
b.	If a correction schedule is necessary, has schedule been entered into SDWIS?	<input type="checkbox"/>	<input type="checkbox"/>	

Print name of ODW staff completing the form: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Print name of Waterworks representative: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

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Name of Reviewer (Print) \_\_\_\_\_ Date: \_\_\_\_\_

Comments:

**FM-C7-Attachment 4.** NOAV + Notification of Level 2 Assessment Requirement.

**INSTRUCTIONS:** Complete/select items shown in *italics* and underlined, and convert to regular font. Staff may apply minor editorial judgment for situational correctness. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

**NOTICE OF ALLEGED VIOLATION  
and  
NOTICE OF LEVEL 2 ASSESSMENT REQUIREMENT**

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Exceeding the Primary Maximum Contaminant Level for *E. coli* Bacteria, and Requirement of Level 2 Assessment

Dear Waterworks Owner:

This Notice is to advise that the subject waterworks appears to be in violation of 12VAC5-590-380 B 1 of the Virginia *Waterworks Regulations* (“*Regulations*”) for exceeding the Primary Maximum Contaminant Level (PMCL) for *E. coli* bacteria during the (select monitoring period - month or calendar quarter, and year).

(Choose one or more paragraphs as appropriate from below):

According to our records, a routine bacteriological sample collected from the distribution system on date was *E. coli*-positive. Number (spell out) of the three repeat samples collected on date were total coliform positive.

According to our records, a routine bacteriological sample collected from the distribution system on date was total coliform positive. Number (spell out) of the three repeat samples collected on date were *E. coli* positive.

In addition, our records do not indicate receipt of the analyses for all of the required repeat samples following an *E.coli*-positive routine sample collected on date.

According to our records, an *E. coli* analysis was not performed on the repeat sample collected on date which tested total coliform positive.

**This is a serious health concern.** The presence of *E. coli* bacteria in drinking water is serious because these bacteria are usually associated with sewage or animal wastes (fecal contamination) and indicate that the water may be contaminated with organisms that can cause disease. *E. coli* bacteria in drinking water are generally a result of contaminated source water, inadequate water treatment, (and/or) contaminated distribution piping.

Consequently, a coliform treatment technique has been triggered due to an *E. coli* bacteria PMCL exceedance. You are hereby notified that a Level 2 assessment must be completed in accordance with 12VAC5-590-392 of the *Regulations*. A Level 2 assessment will be conducted by staff from this office. You were contacted on date, and a site visit to conduct the assessment is scheduled for date.

### **Required Actions**

**Consultation:** The *Regulations* require waterworks owners to initiate consultation with this office within 24 hours of learning of an *E. coli* bacteria PMCL violation. According to our records, the consultation took place at time on date. At that time, name of staff described public notification requirements and (faxed/emailed) you a copy of this letter and a draft Notice to Consumers (“Notice”).

**Public Notice:** This is a Tier 1 situation. 12VAC 5-590-540 A 1 of the *Regulations* requires you to notify consumers within 24 hours of learning whenever the PMCL for *E. coli* bacteria is exceeded. The public notice must be handled as follows:

- You must distribute the Notice no later than time on date. (Note to ODW staff: This date and time must be 24 hours from the time the waterworks became aware of the exceedance. It will usually be 24 hours from the consultation date and time.)
- The Notice must be distributed in a manner to reach all persons served by hand delivering the notice to each connection, posting at conspicuous locations throughout the area served by the waterworks, and/or appropriate broadcast media such as television, radio, social media, or website.
- Additional public notification may be required depending on the outcome of the Level 2 assessment findings.

**Draft Notice:** Attached is a draft Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this office to verify that your proposed changes meet the requirements of the *Regulations*.

**Public Notice Confirmation:** Within ten days of completing public notification, but no later than date, you must provide this office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this office may be a violation of the *Regulations*. A certification form is enclosed for your use.

[If applicable for year round TNC Waterworks] **Monitoring Changes:** Initiate monthly routine bacteriological monitoring beginning (month/year) until further notice. (The waterworks Bacteriological Sample Siting Plan (BSSP) requires revision to reflect the monitoring frequency.) OR (Attached is a revised BSSP reflecting the monitoring frequency revision. Please sign and return the BSSP.) Upon successfully completing all required activities, we will notify you when the monitoring frequency reverts back to quarterly monitoring frequency.

**Additional Actions:** (Note or list any needed follow-up actions)

(If applicable, include paragraph below):

12VAC5-590-370 A 13 of the *Regulations* requires owners who collect routine samples on a quarterly frequency to collect three additional routine samples during the next month following one or more total coliform-positive samples in accordance with your approved BSSP.

### **Level 2 Assessment - Additional Information**

A Level 2 assessment is an in-depth evaluation of conditions throughout the waterworks to determine possible causes for the presence of *E. coli* bacteria. Sanitary defects, which are conditions that could provide a pathway of entry for microbial contamination into the distribution system, identified by the assessment are to be noted and corrected. A schedule of corrective action(s) must be included in the assessment for defects not corrected by the assessment due date.

As a reminder, staff from this office will meet with (note the name of the approved waterworks representative with whom staff will be meeting) on date to conduct the Level 2 assessment.

If you have any questions or concerns regarding this matter, please contact me at (phone number) or email at (email address).

Sincerely,

Name & Title  
Field office name

ABC:xyz

#### **Enclosures:**

1. Draft Public Notice to Consumers
2. Public Notification Certification Report Form
3. Revised BSSP

ec: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director. Manager/Administrator, County/City Town

## **NOTICE TO CONSUMERS of the Name WATERWORKS**

### **IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

State Health Officials have advised us of a failure to meet the Primary Maximum Contaminant Level (PMCL) for *Escherichia coli* (*E. coli*) in accordance with the Virginia *Waterworks Regulations*. Water served to our customers during monitoring period - month or calendar quarter, and year did not comply with the PMCL because *E. coli* was detected in (a sample/samples) collected from our distribution system on date (and in follow-up samples on date).

*E. coli* are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Human pathogens in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a greater health risk for infants, young children, the elderly, and people with severely compromised immune systems. We violated the standard for *E. coli*, indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct a detailed assessment to identify problems and to correct any problems that are found.

General guidelines on ways to lessen the risk of infection by microbes are available from EPA's Safe Drinking Water Hotline at 1 (800) 426-4791.

State Health Officials feel there is a need for concern about the safety of your water. Therefore, until further notice:

### **DO NOT DRINK TAP WATER WITHOUT BOILING IT FIRST**

Bring all tap water to a rolling boil, let it boil for one minute, and let it cool before using, or use bottled water. Boiled or bottled water should be used for drinking, beverage and food preparation, brushing teeth, and making ice. Boiling kills bacteria and other disease-causing microorganisms in the water. Boiling is the preferred method to assure that the tap water is safe to drink. Water does not need to be boiled for washing clothes, bathing, washing dishes, or other uses where water is not ingested. However, care should be taken not to allow children or infants to drink bath water or allow it to get into their mouths.

#### **If you cannot boil your tap water:**

- An alternative method of purification for residents that do not have gas or electricity available is to use liquid household bleach to disinfect water. The bleach product should be recently purchased, free of additives and scents, and should contain a hypochlorite solution of at least 5.25%. Public health officials recommend adding eight (8) drops of bleach (about ¼ teaspoon) to each gallon of water. The water should be stirred and allowed to stand for at least 30 minutes before use.
- Water purification tablets may also be used by following the manufacturer's instructions.
- Potable water is available at the following locations: (List locations where water is

available and any special instructions)

State Health Officials will be conducting an assessment of our waterworks to determine the possible cause for the detection of *E. coli* in our distribution system. We will be following up with all corrective actions noted in their assessment. You will be notified of future developments.

We anticipate resolving the problem within the next provide time frame.

For more information, please contact: name of owner/operator at contact address or contact phone

***Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.***



SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: E. Coli PMCL – date

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**

By direct (hand) delivery on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

at the following locations \_\_\_\_\_

Provided to the following broadcast media (list: television/radio/website/social media) on

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ (method and date)

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Signature)

RETURN TO: Name Field Office, Office of Drinking Water  
Address

**FM-C7-Attachment 5.** Notice of Level 2 Assessment Required.

**INSTRUCTIONS:** Complete/select items shown in *italics* and underlined, and convert to regular font. Staff may apply minor editorial judgment for situational correctness. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

**NOTICE of LEVEL 2 ASSESSMENT REQUIREMENT**

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Dear Waterworks Owner:

This notice is to advise you of requirements per 12VAC5-590-392 B coliform treatment technique triggers and assessment requirements of the *Waterworks Regulations*. The subject waterworks must complete a Level 2 assessment.

(Option 1 for two or more total coliform-positive sample or >5.0% total coliform-positive samples):

Based on our records for the (Month)(# Calendar Quarter) year monitoring period, the subject waterworks had (number or %) total coliform-positive samples. The total coliform-positive samples were collected at sample locations physical location/address on dates, respectively.

(Option 2 for failure to collect every required repeat sample):

Based on our records for the (Month)(# Calendar Quarter) year monitoring period, the subject waterworks failed to collect the proper number of repeat samples. The sample(s) collected from physical location/address on date(s) showed the presence of total coliform bacteria which required the collection of number repeat samples and only number repeat samples were collected.

This situation typically requires a Level 1 assessment to be completed. However, a Level 1 assessment was required after the (Month)(# Calendar Quarter) year compliance period and (a likely cause for this event could not be found.) OR (we could not verify that the sanitary defects associated with this event were corrected.) Consequently, a Level 2 assessment must now be completed.

**Required Actions**

A Level 2 assessment must be completed within 30 days from the date of this letter; on or before date. Unlike a Level 1 assessment, staff from this office will visit the subject waterworks to complete the Level 2 assessment with assistance from you and your staff. (Schedule a site visit

with staff from this office to take place within 2 weeks of the date of this letter.) OR (A site visit has been scheduled for (date).) Please ensure that necessary staff is available and all facilities are accessible.

[If applicable for year round TNC Waterworks]**Monitoring Changes:** Initiate monthly routine bacteriological monitoring beginning (month/year) until further notice. (The waterworks Bacteriological Sample Siting Plan (BSSP) requires revision to reflect the monitoring frequency.) OR (Attached is a revised BSSP reflecting the monitoring frequency revision. Please sign and return the BSSP.) Upon successfully completing all required activities, we will notify you when the monitoring frequency reverts back to quarterly monitoring frequency.

### **Additional Information**

A Level 2 assessment is an in-depth evaluation of conditions throughout the waterworks to determine possible causes for the total coliform-positive sample results. Sanitary defects (conditions that could provide a pathway of entry for microbial contamination into the distribution system) identified by the assessment are to be corrected and noted in the assessment. A schedule of corrective action(s) must be included in the assessment for defects not corrected by the above submittal due date.

If you have any questions or concerns regarding this matter, please contact me at (phone number) or email at (email address).

Sincerely,

Name & Title

Field office name

ABC:xyz

Enclosures:

1. Level 2 assessment form
2. Revised BSSP

cc: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director.

**FM-C7-Attachment 6.** Level 2 Assessment Transmittal Letter for Concurrence.

**INSTRUCTIONS:** Complete/select items shown in *italics* and underlined, and convert to regular font. Staff may apply minor editorial judgment for situational correctness. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Dear Waterworks Owner:

The subject waterworks was required to have a Level 2 assessment completed per the Notice of Level 2 Assessment Required, dated date. Enclosed is a copy of the assessment completed by name and title of this office.

The Level 2 assessment was required (due to an exceedance of the E. coli Primary Maximum Contaminant Level (PMCL)) (because this was the second event within a rolling 12-month period requiring a Level 1 assessment). Refer to the (Notice of Level 2 Assessment Required), dated date for details regarding these events which triggered the assessment requirement.

(Option when NO corrective action is needed):

**REQUIRED ACTION**

Review the assessment, paying particular attention to the “assessment elements” and “corrective action taken and date” summarized on page number. If you agree, sign and date the assessment on page number and return the form to this office no later than date. If you are not in agreement, contact this office within one business day upon receipt of this letter. Failure to submit the completed Level 2 assessment may be a violation of the *Waterworks Regulations*.

(Option when corrective action is needed):

**REQUIRED ACTION**

Review the assessment, paying particular attention to the “elements of concern” and the enclosed schedule of corrective action(s). If you agree with the schedule of corrective action(s), sign, date, and return the form to this office no later than date. If you are not in agreement, contact this office within one business day upon receipt of this letter. Failure to submit a signed Level 2 assessment form, submit a signed schedule of corrective actions, or complete the corrective actions by the scheduled date may be a violation of the *Waterworks Regulations*. In addition, each corrective action that you complete must be reported to this office within 7 days of completion.

We appreciate the assistance in completing the Level 2 assessment and look forward to your continued cooperation. If you have any questions or concerns regarding this matter, please contact me at (phone number) or email at (email address).

Sincerely,

Name & Title

Field office name

ABC:xyz

Enclosures:

1. Level 2 assessment
2. Schedule of Corrective Action

cc: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director.

**SCHEDULE OF CORRECTIVE ACTIONS REQUIRED  
LEVEL 2 ASSESSMENT**

This Office completed a Level 2 assessment on date, which was required due to (an E. coli MCL violation) or (a second Level 1 assessment generated within a rolling 12-month period).

**INTERIM ACTION REQUIREMENTS**

Based on the Level 2 assessment findings, we recommend  
List interim actions such as a Boil Water Advisory, increase chlorine residual, additional sampling

**CORRECTIVE ACTION REQUIREMENTS**

Based on the Level 2 assessment findings, the following items must be corrected as stated below:

Sanitary Defect	Required Corrective Action	Completion Deadline Date

I agree to fully implement the above (interim actions and) corrective actions to rectify the elements of concern that may have led to the (E. coli PMCL violation) or (second Level 1 assessment generated within a rolling 12-month period). I will notify the Virginia Department of Health, Office of Drinking Water, in writing, within 7 business days upon completion of each corrective action.

\_\_\_\_\_  
Waterworks Owner (Signature)

\_\_\_\_\_  
(Date)

**FM-C7-Attachment 7.** Listing of Some Common Sanitary Defects.

**INSTRUCTIONS:** This list is not all-inclusive list, and some waterworks may reveal other defects not listed.

Sanitary Defect	Likely Explanation
Cross-connection & backflow issues	<ul style="list-style-type: none"> <li>✓ Required cross connection control devices not in place or not operating properly</li> <li>✓ Unprotected cross connection</li> <li>✓ Unauthorized connections to water mains/hydrants</li> </ul>
Operational issues	<ul style="list-style-type: none"> <li>✓ Failure to follow Standard Operating Procedures (SOPs) that protect distribution system integrity and sanitary condition</li> <li>✓ Inadequate disinfection during and after pipe repair/replacement activities</li> <li>✓ Failure to monitor and replace chlorine supply</li> <li>✓ Improper/Inadequate chlorine residual measurements</li> <li>✓ Sample collection and transportation problems</li> <li>✓ Failure to follow sample siting plan</li> <li>✓ Use of unapproved or untested source of water</li> <li>✓ Untrained sample collector</li> </ul>
Distribution system issues	<ul style="list-style-type: none"> <li>✓ Inadequate inspection and maintenance of distribution system</li> <li>✓ Loss of distribution system integrity (e.g., main breaks)</li> <li>✓ Failure to maintain adequate pressure or low pressure event</li> <li>✓ Pump failure</li> <li>✓ Supervisory control and data acquisition (SCADA) and control issues</li> <li>✓ Improper or lack of flushing operations</li> <li>✓ Improper construction of new, replaced or renovated lines or service connections</li> </ul>
Storage issues	<ul style="list-style-type: none"> <li>✓ Overflow, vents, hatches and other penetrations not configured, screened or sealed properly</li> <li>✓ Holes in tanks that could allow entry of insects or small animals</li> <li>✓ Leaks in tanks that could be harboring growth</li> <li>✓ Waterlogged bladder or hydropneumatic pressure tanks</li> <li>✓ Inadequate inspection and maintenance of storage facilities</li> <li>✓ Inadequate disinfection during and after pipe repair/replacement activities</li> </ul>
Source water issues	<ul style="list-style-type: none"> <li>✓ Cracks or holes in well seals or casings</li> <li>✓ Leaking sewer lines or septic tanks</li> <li>✓ Sewage overflow upstream of the source</li> <li>✓ Lack of wellhead protection</li> <li>✓ Unsanitary conditions at the wellhead</li> <li>✓ Contamination during pump or motor repair or replacement</li> <li>✓ Watertight seal at wellhead not present</li> </ul>
Disinfection issues	<ul style="list-style-type: none"> <li>✓ Inability to maintain required residual throughout the distribution system</li> <li>✓ Failure of chlorination equipment</li> <li>✓ Improper settings on chemical feed</li> <li>✓ Failure in redundant disinfection</li> <li>✓ Loss of power</li> </ul>

*Note:* Field staff are encouraged to share this list with waterworks owners/operators to be used as a tool during their effort in completing a Level 1 Assessment.

**Start-up Procedure for Seasonal Waterworks**

Name of Waterworks: \_\_\_\_\_

PWSID No.: \_\_\_\_\_

**Purpose:** All seasonal waterworks are required to establish a start-up procedure approved by the Virginia Department of Health, Office of Drinking Water (ODW). A seasonal waterworks is a noncommunity waterworks that is not operated on a year-round basis and starts up and shuts down at the beginning and end of each operating season. Shutting down the waterworks may allow opportunities for bacteriological contamination to enter or spread throughout the distribution system upon re-opening.

**Waterworks Details:**

- Anticipated start-up date: \_\_\_\_\_
- Anticipated shut-down date: \_\_\_\_\_
- Does the waterworks routinely provide chlorination treatment?     Yes     No
- Conditions at shut down:
  - Will the waterworks remain pressurized (at least 20 psi)?     Yes     No
  - Will the waterworks be fully drained?     Yes     No
  - Will the well(s) continue to be used in the off season?     Yes     No

Provide details on conditions at shut down and off-season activity: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Procedure:** The following steps in the start-up procedure are mandatory before serving water. The waterworks will be inspected, maintained and repaired as needed, disinfected (where applicable), and sampled for bacteriological water quality before opening day. Start-up procedures shall begin well in advance of the anticipated first day of public use to ensure enough time is available to repeat disinfection and sampling procedures, if necessary. (The appropriate ODW field office may be contacted to arrange a site visit to provide technical assistance with the start-up procedures.)

1. At least \_\_\_\_\_ weeks before opening and throughout the start-up procedure, an inspection will be performed of the waterworks. Identified sanitary defects/deficiencies will be corrected as well as any other issues that may affect start-up of the closed section.
  - a. **Source** (i.e., wellhead, spring box, or other structure):
    - 1) The surrounding area will be checked for any potential contamination sources such as fuel storage, chemicals, pesticides, paints, surface water ponding, animal feces, and any other materials that could contaminate the area.
    - 2) The well cap/spring box/cover, etc., will be checked to verify it is secured, electrical conduits are protected and sealed, vent screens are intact, and any other signs of damage will be noted and repaired.
  - b. **Well/Pump House:** The structure will be checked for leaking pipes, operational lighting and heating, exposed wires in all electrical conduits, operational sump pumps and booster pumps, signs of flooding or pests/vermin intrusion, vent screens, security measures, and removal of all hazardous or unsanitary materials, etc.



**FM-C8-Attachment 1. Full Seasonal Waterworks Start-up Procedures.**

- c. **Treatment Facilities:** Inspections will be conducted of all chemical feed pumps, fittings, tubing, injection points, solution crocks, test kits, and that all chemicals and necessary reagents are current (shelf life not expired).
- d. **Storage Facilities:** Inspections of tank(s) will be conducted for physical damage, pitting or other corrosion, and overall integrity (no cracks or openings). In addition, any defects/deficiencies will be corrected at each type of tank for the following:
  - 1) **Atmospheric tanks:** the vent/overflow/drain screens, water level controls, water tight hatches, locked hatches, sediment build-up, etc.
  - 2) **Hydropneumatic/bladder tanks:** operability of pressure gauges and control switches, correct air/water ratio (tanks are not waterlogged), etc.
- e. **Distribution system:** Valves, blowoffs, and hydrants will be exercised and an inspection will be conducted for leaks upon filling/flushing the distribution piping. The Cross-Connection Control Program will be complied with by ensuring that all devices are installed and tested as required.

2. Flushing will be conducted as follows:

- a. The well will be flushed to waste using the well blowoff or a comparable tap until all water runs clear.
- b. Storage facilities will be completely drained and flushed to waste to remove stagnant water and sediment.

3. Check which section applies – A, B or C:

A.  The waterworks will remain pressurized (further disinfection is not required); therefore, the following actions will be taken:

- a. Flushing of the distribution system by opening up the taps/hydrants closest to the source first and working outward to the end of the distribution system.
- b. Once all the water runs clear, the taps/hydrants will be closed in the same order as opened (starting with those closest to the source).
- c. If chlorine is used to treat the water, the chlorinator will be operated simultaneously while flushing the distribution system, using caution to prevent any chlorinated water from discharging into any surface water (creeks, streams, lakes, etc.). The chlorinated water will be discharged to vegetated areas. Taps/hydrants will be closed upon obtaining a normal chlorine residual (approximately\_\_ ppm). A field test kit will be used to ensure that the proper level is maintained.

**Note: Chlorine solutions are hazardous. Follow safety precautions: use personal protection equipment such as gloves and goggles to avoid contact with skin and eyes.**

B.  The waterworks is fully/partially drained; therefore the facilities will be disinfected using the method checked, and steps “a” through “d” listed below shall be completed. Water treatment devices will be bypassed to prevent damage by the chlorine. (**Note:** Chlorine is not used to treat the water supply.)

Adding approximately \_\_\_\_\_ (ounces)(cups) of \_\_\_\_\_% (sodium hypochlorite) (calcium hypochlorite) chlorine to the well(s).

Adding approximately \_\_\_\_ (ounces)(cups) of \_\_\_\_\_% (sodium hypochlorite) (calcium hypochlorite) chlorine to the atmospheric storage tank(s).

- a. Taps will be opened to get the chlorinated water into the pipes by opening the ones closest to the source first and working outward to the end of the distribution system. Upon detecting the chlorine smell, all taps will be closed in the same order as opened (starting with those closest to the source).
- b. The chlorinated water will be left in the distribution system for a minimum of 24 hours.
  - a. After 24 hours, the distribution system will be flushed to remove the chlorinated water.
  - b. Chlorinated water will be neutralized with a suitable chemical (such as sulfur dioxide, sodium bisulfite, sodium sulfite, or sodium thiosulfate) before discharge to any surface water (i.e.,

**FM-C8-Attachment 1. Full Seasonal Waterworks Start-up Procedures.**

creek, stream, river, lake, etc.) OR the local sewer department will be contacted and their procedures followed for disposing of any chlorinated water into the sanitary sewer OR the chlorinated water will be discharged to vegetated areas.

**Note: Chlorine solutions are hazardous. Follow safety precautions: use personal protection equipment such as gloves and goggles to avoid contact with skin and eyes.**

- C.  The waterworks is fully/partially drained and will be disinfected by operating the chlorinator at a dose of 25 ppm. Water treatment devices will be bypassed to prevent damage by the chlorine. The following steps will be completed:
- a. Taps will be opened to get the chlorinated water into the pipes by opening the ones closest to the source first and working outward to the end of the distribution system. Upon detecting the chlorine smell, all taps will be closed in the same order as opened (starting with those closest to the source).
  - b. The chlorinated water will be left in the distribution system for a minimum of 24 hours.
  - c. After 24 hours, the distribution system will be flushed to remove the highly chlorinated water. The water will run until the level of chlorine has reduced to the normal operating level (approximately \_\_\_ ppm). A field test kit will be used to ensure that the proper level is maintained.
  - d. Chlorinated water will be neutralized with a suitable chemical (such as sulfur dioxide, sodium bisulfite, sodium sulfite, or sodium thiosulfate) before discharge to any surface water (i.e., creek, stream, river, lake, etc.) OR the local sewer department will be contacted and their procedures followed for disposing of any chlorinated water into the sanitary sewer OR the chlorinated water will be discharged to vegetated areas.

**Note: Chlorine solutions are hazardous. Follow safety precautions: use personal protection equipment such as gloves and goggles to avoid contact with skin and eyes.**

4. After the disinfection/flushing procedure is completed:
  - a. Two bacteriological water samples will be collected, a minimum of 16 hours apart, from an approved bacteriological sample site and submitted to a laboratory certified to perform the presence/absence analysis.
  - b. The samples will be marked "special" on the lab form and will not be used for compliance purposes.
  - c. If either sample result is total coliform present, the procedures listed in item Nos. 2, 3, and 4 will be repeated until two total coliform absent results are obtained.
  - d. Water will not be provided to the public until two consecutive bacteriological samples (collected 16 hours apart) have tested total coliform absent and the start-up certification form has been submitted.
5. A copy of the two "special" bacteriological sample analysis results and the certification form stating completion of the above start-up procedures will be submitted to the \_\_\_\_\_ Field Office.

Owner/Representative Name: \_\_\_\_\_

Title: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

### Seasonal Start-up: Disinfection Procedures

Waterworks does not have an atmospheric storage tank. We will disinfect using Method 1.

Waterworks has an atmospheric storage tank. We will disinfect using Method 2.

**Note:** Concentrated chlorine solutions are hazardous. Follow safety precautions: use personal protection equipment such as gloves and goggles to avoid contact with skin and eyes.

**Disinfection Method 1:** Well pump will be used to provide chlorinated water to disinfect the waterworks.

**Step 1.** Flush the well to waste until all water runs clear using the well's blowoff or comparable tap. Drain and flush all storage tank(s) to waste to remove stagnant water and sediment.

**Step 2.** Refer to the Well Completion Report for your well or use the Waterworks Description Sheet (WDS) prepared by Virginia Department of Health, Office of Drinking Water (ODW). If the well depth is unknown, call your ODW Field Office for guidance.

Determine the well depth, static water level, and the diameter of the well casing and note it below.

**Well depth:**\_\_\_\_\_ **Static water level:**\_\_\_\_\_ **Well casing diameter:**\_\_\_\_\_

Using Table 1, calculate the amount of water in the well (see example below).

Table 1: Calculating Well Volume	
Well Casing Diameter	Volume of Water Per Foot
4 inches	0.7 gallons
6 inches	1.5 gallons
8 inches	2.6 gallons

**Example** – By looking at your Well Completion Report or WDS, you know that the depth of the well is 550 feet, the static water level is 36 feet, and the casing diameter is 6-inch. To determine total depth of water in the well, subtract the static water level from the depth of the well.  $550 \text{ feet} - 36 \text{ feet} = 514 \text{ feet}$  (depth of water in the well). Multiply this depth by the factor in Table 1 to determine the gallons of water in the well.  $514 \text{ feet} \times 1.5 \text{ gallons (6-inch diameter casing)} = 771 \text{ gallons of water in the well.}$

**Step 3.** Use Table 2 to determine the chlorine dose needed to achieve 25 ppm of chlorine residual using the volume of water in the well as calculated in Step 2 above. Round up the number of gallons determined in Step 2.

**Step 4.** Dilute liquid chlorine bleach (sodium hypochlorite) with enough water to fill a clean 5-gallon bucket. Calcium hypochlorite will be added dry.

- If the well has a pitless adapter and well cap (Figure 1), remove bolts and cap. Pour chlorine solution into the well or if using calcium hypochlorite granules, add directly to the well. Pour several buckets of fresh water into the well to rinse the concentrated chlorine solution off of the wiring and sides of the casing. This will help prevent possible damage or corrosion of components. Ensure that the rubber gasket is in place, replace cap, and tighten the bolts evenly.

**CAUTION:** Be careful when pouring chlorine solution to avoid dousing electrical connections/wire nuts. Pull connectors up out of the casing if possible before pouring in chlorine solution.



Figure 1 – Pitless Adapter

**FM-C8-Attachment 2. Seasonal Waterworks Start-up Disinfection Procedures.**

- If the well has a sanitary seal split well cap (non-pitless cap) (Figure 2), remove the vent pipe and use a funnel to pour the chlorine solution or calcium hypochlorite granules into the well. Pour several buckets of fresh water into the well to rinse the concentrated chlorine solution off of the wiring and sides of the casing. This will help prevent possible damage or corrosion of components. Replace the vent pipe, ensuring that the screen is securely in place.

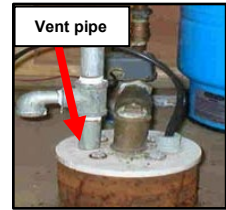


Figure 2 - Split Well Cap

**CAUTION: Do not loosen the bolts of the split well cap or the pump/drop pipe may release into the well.**

**Step 5.** Follow the approved Start-up Procedures to complete the disinfection process. Until the chlorine is flushed out, bypass any water treatment devices, such as water softeners.

**Disinfection Method 2: Chlorine will be added to the atmospheric storage tank to disinfect the waterworks.**

**Step 1.** Flush the well to waste until all water runs clear using the well's blowoff or comparable tap. Drain and flush all storage tank(s) to waste to remove stagnant water and sediment.

**Step 2.** Based on the atmospheric tank volume, determine how much chlorine to add to the tank by referring to Table 2.

**Step 3.** Dilute liquid chlorine bleach (sodium hypochlorite) with enough water to fill a clean 5-gallon bucket. Add chlorine solution to the empty tank(s) and fill tank(s) with water until full. If using calcium hypochlorite granules, add directly to the tank.

**Step 4.** Follow the approved Start-up Procedures to complete the disinfection process. Until the chlorine is flushed out, bypass all water treatment devices, such as water softeners, that are downstream from the tank to prevent damage by the chlorine.

<b>Table 2: Chlorine dose of 25 ppm with a disinfection time of 24 hours</b>				
<b>Volume of Water (gallons)</b>	<b>Sodium Hypochlorite Dose of 25 ppm (5.25% strength)</b>	<b>Sodium Hypochlorite Dose of 25 ppm (8.25% strength)</b>	<b>Sodium Hypochlorite Dose of 25 ppm (12.5% Strength)</b>	<b>Calcium Hypochlorite Granule Dose of 25 ppm (65% Strength)</b>
200	1 ½ cups (12 oz)	1 cup (8 oz)	¾ cup (6 oz)	⅙ cup
300	2 ¼ cups (18 oz)	1 ⅓ cups (11 oz)	1 cup (8 oz)	¼ cup
500	3 ½ cups (28 oz)	2 ¼ cups (18 oz)	1 ½ cups (12 oz)	⅓ cup
750	5 ⅓ cups (43 oz)	3 ½ cups (28 oz)	2 ⅓ cups (19 oz)	½ cup
1,500	10 ¾ cups (86 oz)	6 ¾ cups (54 oz)	4 ⅔ cups (37 oz)	1 cup
2,500	1 ¼ gallons	¾ gallon	½ gallon	1 ½ cups

**NOTE:** If not using National Sanitation Foundation (NSF) certified sodium hypochlorite, use regular household bleach that has been recently purchased and is free of additives and scents.

**FM-C8-Attachment 3. Review Sheet - Seasonal Waterworks Start-up Procedures.**

**REVIEW SHEET FOR SEASONAL START-UP PROCEDURES**

Subject: _____ Water: _____ Prepared By: _____ Date Submitted: _____ Reviewed By: _____	Review Time		
	Date	Hours	Initials

- |    |   |     |    |     |
|----|---|-----|----|-----|
| 1. | Is an ODW standard Start-up Procedure form used?        | Yes | No |     |
|    | Are all portions of the form completed?                 | Yes | No | N/A |
|    | Comments:   |     |    |     |
|    | Acceptable?   | Yes | No |     |
| 2. | Has an exemption been requested?                        | Yes | No |     |
|    | Does Distribution System remain pressurized year round? | Yes | No | N/A |
|    | Does Waterworks have atmospheric storage?               | Yes | No | N/A |
|    | Recommend granting exemption?                           | Yes | No | N/A |
| 3. | Does the procedure include the following?               |     |    |     |
|    | Inspection of the waterworks                            | Yes | No | N/A |
|    | Maintenance or repair of deficient items                | Yes | No | N/A |
|    | Flushing of storage and distribution systems            | Yes | No | N/A |
|    | Disinfection of storage and distribution systems        | Yes | No | N/A |
|    | Special bacteriological sampling                        | Yes | No | N/A |
|    | Comments:   |     |    |     |
|    | Acceptable?   | Yes | No | N/A |
| 4. | Comments:   |     |    |     |

**FM-C8-Attachment 4.** Approval Letter - Seasonal Waterworks Start-up Procedures.

**INSTRUCTIONS:** Complete/select items shown in *italics* and underlined, and convert to regular font. Staff may apply minor editorial judgment for situational correctness. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner

Address 1

Address 2

City, State, Zip

Dear Waterworks Owner:

The Start-up Procedure dated (insert date) for the subject (choose either - seasonal waterworks or waterworks with seasonal components) has been reviewed by this office. This letter is to advise that the Start-up Procedure satisfies the requirements of the Waterworks Regulations (Regulations) and is approved. A copy of the approved Start-up Procedure is enclosed.

Please note the Regulations require, as a (choose either - seasonal waterworks or waterworks with seasonal components), that you must complete this approved procedure before the start of every operating season, and submit a written certification form to this office. Start-up sampling is mandatory and samples must be collected before the start of every operating season. Two “special” bacteriological samples must be taken from the distribution system at a minimum of 16 hours apart, using an approved site from your currently approved bacteriological sample siting plan. The results of these samples must be absent for total coliforms.

You will need to make appropriate arrangements with your laboratory to procure these sample kits. Use the correct forms and labels (sent with the sampling kits) for these samples. Notify this office immediately if there are any errors on these forms so that the appropriate corrections can be made.

Finally, allow sufficient time for completing the Start-up Procedure, including receiving sample results, before serving water to the public. We recommend sample collection and analyses at least 2 weeks before the first day of service.

If we may be of any assistance to you in implementing this Start-up Procedure, please contact me at (phone number) or email at (email address).

Sincerely,

Name & Title  
Field office name

ABC:xyz

Enclosure: Approved Start-up Procedure

ec: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director.

## CERTIFICATION FORM

### Seasonal Waterworks Start-up Procedure Completed

Name of Waterworks: \_\_\_\_\_

PWSID No.: \_\_\_\_\_

Anticipated Date of Opening: \_\_\_\_\_

---

During the closed season, this waterworks was:

- Partially/fully drained
  - Fully pressurized (at least 20 psi)
- 

To help reduce the risk of bacteriological contamination in the water being served to the public at this waterworks, the following start-up procedures were completed.

- Inspected the waterworks for sanitary defects
  - Repaired all noted sanitary defects
    - N/A – no defects noted
  - Cleaned/flushed all storage facilities
  - Flushed all pipes until the water ran clear
  - Disinfected the waterworks
    - N/A – disinfection not required per approved Start-up Procedure
  - Placed treatment facilities into service
    - N/A – no treatment facilities
  - Collected two bacteriological samples a minimum of 16 hours apart for presence/absence analysis
  - Submitted bacteriological results to the Office of Drinking Water
- 

I hereby certify that each start-up procedure indicated above was completed before water was served to the public in accordance with the approved “Start-up Procedure” document for this waterworks.

Signature \_\_\_\_\_ Date: \_\_\_\_\_

Print Name: \_\_\_\_\_

Job Title: \_\_\_\_\_

Phone: \_\_\_\_\_

**Submit this form to:** VDH - Office of Drinking Water  
Name Field Office, Address



**Start-up Procedure for Waterworks with Seasonal Components**

Name of Waterworks: \_\_\_\_\_

PWSID No.: \_\_\_\_\_

**Purpose:** Year-round waterworks that shut down some of their components during the operating year shall establish a Start-up Procedure for that section of the waterworks. The Start-up Procedure must be approved by the Virginia Department of Health, Office of Drinking Water (ODW). Shutting down part of the waterworks may allow opportunities for bacteriological contamination to enter or spread throughout the distribution system upon re-opening the closed section.

**Details of Partial Waterworks Closure:**

- Anticipated start-up date: \_\_\_\_\_
- Anticipated shut-down date: \_\_\_\_\_
- Does the waterworks routinely provide chlorination treatment?    Yes    No
- Conditions at shut down:
  - Will the closed section remain pressurized (at least 20 psi)? Yes    No
  - Will the closed section be fully drained?    Yes    No
  - Will all well(s) continue to be used?    Yes    No
  - Will all storage facilities remain in use?    Yes    No

Provide details on conditions at shut down and off season activity: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Procedure:** The following steps in the start-up procedure are mandatory before serving water. The closed section of the waterworks will be inspected, maintained and repaired as needed, disinfected (where applicable), and sampled for bacteriological water quality before opening day. Start-up procedures will begin well in advance of the anticipated first day of public use, to ensure enough time is available to repeat disinfection and sampling procedures, if necessary. (The appropriate ODW field office may be contacted to arrange a site visit to provide technical assistance with the start-up procedures.)

1. At least \_\_\_\_\_ weeks before opening and throughout the start-up procedure, an inspection will be performed of all waterworks components that have not been in operation year-round. Identified sanitary defects/deficiencies will be corrected as well as any other issues that may affect start-up of the closed section.
  - a. **Source** (i.e., wellhead, spring box, or other structure):
    - 1) The surrounding area will be checked for any potential contamination sources such as fuel storage, chemicals, pesticides, paints, surface water ponding, animal feces, and any other materials that could contaminate the area.
    - 2) The well cap/spring box/cover, etc., will be checked to verify it is secured, electrical conduits are protected and sealed, vent screens are intact, and any other signs of damage will be noted and repaired.
  - b. **Well/Pump House:** The structure will be checked for leaking pipes, operational lighting and heating, exposed wires in all electrical conduits, operational sump pumps and booster pumps, signs of flooding or pests/vermin intrusion, vent screens, security measures, and removal of all hazardous or unsanitary materials, etc.

- c. **Treatment Facilities:** Inspections will be conducted of all chemical feed pumps, fittings, tubing, injection points, solution crocks, test kits, and that all chemicals and necessary reagents are current (shelf life not expired).
  - d. **Storage Facilities:** Inspections of tank(s) will be conducted for physical damage, pitting or other corrosion, and overall integrity (no cracks or openings). In addition, any defects/deficiencies will be corrected at each type of tank for the following:
    - 1) **Atmospheric tanks:** the vent/overflow/drain screens, water level controls, water tight hatches, locked hatches, sediment build-up, etc.
    - 2) **Hydropneumatic/bladder tanks:** operability of pressure gauges and control switches, correct air/water ratio (tanks are not waterlogged), etc.
  - e. **Distribution system:** Valves, blowoffs, and hydrants will be exercised and an inspection will be conducted for leaks upon filling/flushing the distribution piping. The Cross-Connection Control Program will be complied with by ensuring that all devices are installed and tested as required.
2. If the source and/or storage facilities have not been in use, flushing will be conducted as follows:
- a. The well will be flushed to waste using the well blowoff or a comparable tap until all water runs clear.
  - b. Storage facilities will be completely drained and flushed to waste to remove stagnant water and sediment.

3. Check which section applies – A, B or C:

- A.**  The waterworks closed section will remain pressurized (further disinfection is not required); therefore, the following actions will be taken:
- a. Flushing of the distribution system by opening up the taps/hydrants closest to the source first and working outward to the end of the distribution system.
  - b. Once all the water runs clear, the taps/hydrants will be closed in the same order as opened (starting with those closest to the source).
  - c. If chlorine is used to treat the water, the chlorinator will be operated simultaneously while flushing the distribution system using caution to not allow any chlorinated water to discharge into any surface water (creeks, streams, lakes, etc.). The chlorinated water will be discharged to vegetated areas. Taps/hydrants will be closed upon obtaining a normal chlorine residual (approximately \_\_\_\_\_ ppm). A field test kit will be used to ensure that the proper level is maintained.

**Note: Chlorine solutions are hazardous. Follow safety precautions: use personal protection equipment such as gloves and goggles to avoid contact with skin and eyes.**

- B.**  The waterworks closed section is fully/partially drained; therefore, the seasonal components will be disinfected using the method checked and steps “a” through “c” listed below shall be completed. Water treatment devices will be bypassed to prevent damage by the chlorine. (**Note:** Chlorine is not used to treat the water supply.)

Adding approximately \_\_\_\_\_ (ounces)(cups) of \_\_\_\_% (sodium hypochlorite) (calcium hypochlorite) chlorine to the well(s).

Adding approximately \_\_\_\_ (ounces)(cups) of \_\_\_\_% (sodium hypochlorite) (calcium hypochlorite) chlorine to our atmospheric storage tank(s).

- a. Taps will be opened to get the chlorinated water into the pipes by opening the ones closest to the source first and working outward to the end of the distribution system. Upon detecting the chlorine smell, all taps will be closed in the same order as opened (starting with those closest to the source).
- b. The chlorinated water will be left in the distribution system for a minimum of 24 hours.
- c. After 24 hours, the distribution system will be flushed to remove the chlorinated water.
- d. Chlorinated water will be neutralized with a suitable chemical (such as sulfur dioxide, sodium bisulfite, sodium sulfite, or sodium thiosulfate) before discharge to any surface water (i.e., creek, stream, river, lake, etc.) OR the local sewer department will be contacted and procedures followed before disposing of any chlorinated water into the sanitary sewer OR the chlorinated water will be discharged to vegetated areas.

**Note: Chlorine solutions are hazardous. Follow safety precautions: use personal protection equipment such as gloves and goggles to avoid contact with skin and eyes.**

- C.  The waterworks closed section is fully/partially drained and will be disinfected by operating the chlorinator at a dose of 25 ppm. Water treatment devices will be bypassed to prevent damage by the chlorine. The following steps will be completed:
- a. Taps will be opened to get the chlorinated water into the pipes by opening the ones closest to the source first and working outward to the end of the distribution system. Upon detecting the chlorine smell, all taps will be closed in the same order as opened (starting with those closest to the source).
  - b. The chlorinated water will be left in the distribution system for a minimum of 24 hours.
  - c. After 24 hours, the distribution system will be flushed to remove the highly chlorinated water. Chlorinated water will not be allowed to enter a surface water source (i.e., creek, stream, river, lake, etc.). The water will run until the level of chlorine has reduced to the normal operating level (approximately \_\_\_ ppm). A field test kit will be used to ensure that the proper level is maintained.
  - d. Chlorinated water will be neutralized with a suitable chemical (such as sulfur dioxide, sodium bisulfite, sodium sulfite, or sodium thiosulfate) before discharge to any surface water (i.e., creek, stream, river, lake, etc.) OR The local sewer department will be contacted and procedures followed before disposing of any chlorinated water into the sanitary sewer OR the chlorinated water will be discharged to vegetated areas.

**Note: Chlorine solutions are hazardous. Follow safety precautions: use personal protection equipment such as gloves and goggles to avoid contact with skin and eyes.**

4. After the disinfection/flushing procedure is completed:
  - a. Two bacteriological water samples will be collected, a minimum of 16 hours apart, from an approved bacteriological sample site and submitted to a laboratory certified to perform the presence/absence analysis.
  - b. The samples will be marked "special" on the lab form and will not be used for compliance purposes.
  - c. If either sample result is total coliform present, the procedures listed in item Nos. 2, 3, and 4 will be repeated until two total coliform absent results are obtained.
  - d. Water will not be provided to the public until two consecutive bacteriological samples (collected 16 hours apart) have tested total coliform absent and the start-up certification form has been submitted.
5. A copy of the two "special" bacteriological sample analysis results and the certification form stating completion of the above start-up procedures will be submitted to the \_\_\_\_\_ Field Office.

Owner/Representative Name: \_\_\_\_\_

Title: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

## CERTIFICATION FORM

### Waterworks with Seasonal Components Start-up Procedure Completed

Name of Waterworks: \_\_\_\_\_

PWSID No.: \_\_\_\_\_

Anticipated Date of Opening (partial system closure): \_\_\_\_\_

---

During the time frame in which we shut down some of our waterworks components, the section was:

- Partially/fully drained
  - Fully pressurized (at least 20 psi)
- 

To help reduce the risk of bacteriological contamination in the water being served to the public at this waterworks, the following start-up procedures were completed.

- Inspected shut down components for sanitary defects
  - Repaired all noted sanitary defects
    - N/A – no defects noted
  - Cleaned/flushed all storage facilities
  - Flushed all pipes until the water ran clear
  - Disinfected the waterworks
    - N/A – disinfection not required per approved Start-up Procedure
  - Placed treatment facilities into service
    - N/A – no treatment facilities
  - Collected two bacteriological samples a minimum of 16 hours apart for presence/absence analysis
  - Submitted bacteriological results to the Office of Drinking Water
- 

I hereby certify that each start-up procedure indicated above was completed before water was served to the public in accordance with the approved "Start-up Procedure" document for this waterworks.

Signature \_\_\_\_\_ Date: \_\_\_\_\_

Print Name: \_\_\_\_\_

Job Title: \_\_\_\_\_

Phone: \_\_\_\_\_

**Submit this form to:** VDH - Office of Drinking Water  
Name Field Office, Address

# CERTIFICATION FORM

## Epichlorohydrin and Acrylamide Usage

Waterworks PWSID: \_\_\_\_\_

Waterworks Name: \_\_\_\_\_

Reporting Period/Year\*: \_\_\_\_\_

(\* Reporting period will usually be the last full calendar year during which polymer was used.)

I certify that a polymer  was  was not used for treatment of drinking water during the reporting period.

If a polymer was used, it may have contained epichlorohydrin or acrylamide, and according with 12VAC5-590-395 B of the *Waterworks Regulations*, I certify that the product identification, listing, and maximum dosages applied during the reporting period were as follows:

Name of Polymer: \_\_\_\_\_

Manufacturer: \_\_\_\_\_

Compliance with ANSI/NSF/CAN Standard 60?  Yes  No

Name of Certification Organization:  NSF;  UL;  Other;  None

Allowable maximum use level (MUL) in product listing: \_\_\_\_\_ mg/L.

Actual maximum dosage applied during reporting period: \_\_\_\_\_ mg/L.

---

I hereby certify that the information above is complete and correct.

Operator License #: \_\_\_\_\_

Signature \_\_\_\_\_ Date: \_\_\_\_\_

Print Name: \_\_\_\_\_

Job Title: \_\_\_\_\_

Phone: \_\_\_\_\_

**IMPORTANT: This form must be submitted in January of each calendar year. Please be sure to complete one form for each polymer used. Submit completed form to:**

Attn: District Engineer  
VDH - Office of Drinking Water  
Name Field Office, Address

**FM-C11-Attachment 1.** First CCR Notification Letter or Convert to Email.

**INSTRUCTIONS:** Complete/select items shown in *italics* and underlined, and convert to regular font. Staff may apply minor editorial judgment for situational correctness. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner

Address 1

Address 2

City, State, Zip

Dear Waterworks Owner:

The Consumer Confidence Report (CCR) Rule requires all community waterworks to develop and deliver a CCR for the (insert previous year) calendar year to their consumers by July 1, (insert current year). The CCR reports to consumers on the level of contaminants in the drinking water supplied by your waterworks, provides information on the health concerns of each regulated contaminant in the drinking water, and provides for consumer opportunities to get involved in protecting the water source(s).

The important deadlines that you need to be aware of are as follows:

- May 1, (insert current year): Last day to submit a draft copy of the CCR to the ODW field office if a review is desired before the CCR is distributed. The review may take two to four weeks.
- July 1, (insert current year): Last day to distribute the final CCR to customers covering the waterworks operations for the (insert previous year) calendar year. Deliver a copy of the final CCR to this field office.
- October 1, (insert current year): Last day to submit the signed certification form to your field office (copy attached).

When preparing your (insert previous year) CCR, you may use last year’s report as a guide. However, you may also choose to develop the CCR using the EPA’s Web-based program, CCRiWriter at:

[https://ofmpub.epa.gov/apex/safewater/f?p=140:LOGIN\\_DESKTOP:.....](https://ofmpub.epa.gov/apex/safewater/f?p=140:LOGIN_DESKTOP:.....)

As always, we are available to help guide you through this process.

If you have any questions or concerns regarding this matter, please contact me at (phone number) or email at (email address).

Sincerely,

Name & Title  
Field office name

ABC:xyz

Enclosure(s): (If applicable, insert relevant information)

**FM-C11-Attachment 2.** Second CCR Reminder Letter or Convert to Email.

**INSTRUCTIONS:** Complete/select items shown in *italics* and underlined, and convert to regular font. Staff may apply minor editorial judgment for situational correctness. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Dear Waterworks Owner:

On (insert date of first reminder), this office notified you regarding the upcoming Consumer Confidence Report (CCR) Rule requirements for your waterworks. As a community waterworks, you are required to develop and deliver a CCR for the calendar year (insert previous year) to your consumers by July 1, (insert current year). Please note that July 1, (insert current year) is the last day to distribute the final CCR to your customers and that October 1, (insert current year) is the last day to submit the signed certification form to this field office (copy attached).

As always, we are available to help guide you through this process. If you require a review by this office, we encourage you to submit your CCR to us for review by May 1, (insert current year). This will help to ensure that your CCR is accurate and in compliance with all of the CCR Rule requirements. Please take advantage of this opportunity.

If you have any questions or concerns regarding this matter, please contact me at (phone number) or email at (email address).

Sincerely,

Name & Title  
Field office name

ABC:xyz

Enclosure: CCR Certification Form



**FM-C11-Attachment 3.** CCR Review Sheet.

**INSTRUCTIONS:** ODW field staff to complete after CCR is received. Complete/select items shown in *italics* and underlined.

**CCR REVIEW SHEET for XXXX (Insert previous calendar year) Water Quality Data**

		<b>Logged in SDWIS</b>	<b>DATE</b>
City / County:	DRAFT RECEIVED		
Waterworks Name:	DRAFT COMMENTS		
Reviewer:	FINAL RECEIVED		
	FINAL APPROVED		

<b>WATER SYSTEM and SOURCE WATER INFORMATION</b>	<b>COMMENTS</b>
Name/telephone number of contact person/ Public participation opportunities	
Type (ground, GUDI or surface); location and commonly used name	
Source water assessment (means to obtain assessment and brief summary of system's susceptibility)	
<b>DEFINITIONS</b>	
MCL and MCLG (mandatory language)	
TT, AL, MRDLG, MRDL, LVL1 Assessment, LVL2 Assessment, Variance, Exemption (if applicable—mandatory language)	
<b>TABLE(S) OF DETECTED CONTAMINANTS</b>	
MCL and MCLG in whole numbers	
Separate columns for sources serving hydraulically separate distribution systems	
Highest level of detected contaminant and range (if needed)	
Average level of unregulated contaminant and range (monitoring under UCMR Program)	
Was sodium monitored and reported to the appropriate authorities?	
Turbidity levels (highest single measurement and lowest monthly percentage meeting 0.3 TU)	
Pb/Cu results (90 <sup>th</sup> percentile of most recent samples and # of sites exceeding AL)	
Total coliform results (highest monthly # of positives or monthly % of positives)	
<i>E. coli</i> results (total number of positives)	
Typical source(s) of contaminant (mandatory language)	
GWR total number of <i>E. coli</i> (as fecal indicator) source water positive samples	
<b>VIOLATIONS – Reported adjacent to table</b>	
<u>PMCL, MRDL, Monitoring and Reporting, Recordkeeping, TT, Variance, Exemption, and Administrative or Judicial Orders:</u> include explanation of violation, length of violation, potential adverse health effects, and corrective actions.	
<u>LVL1 &amp; LVL2 TT violations:</u> include additional required statements as applicable	
<b>ASSESSMENTS</b>	
<u>LVL1 and LVL2 not associated with an <i>E. coli</i> PMCL:</u> mandatory health effects language; summary of number of required and completed assessments	
<u>LVL2 associated with <i>E. coli</i> PMCL:</u> mandatory health effects language, summary of number of required and completed corrective actions.	

<b>MANDATORY LANGUAGE</b>	
Explanation of contaminants and their presence in drinking water	
Warning for vulnerable populations	
Lead additional health information	
<b>INFORMATION STATEMENTS</b>	
Arsenic, if > 5 ppb but ≤ 10 ppb	
Arsenic, if > 10 ppb includes health effects language in Appendix O	
Cryptosporidium, summary of results and explanation of the significance of results	
Nitrate, if > 5 ppm but < 10 ppm	

<b>GWR - SPECIAL NOTICE LANGUAGE</b>	
Uncorrected Significant Deficiencies (SD): include the nature of the SD, date identified, schedule for correction, interim measures, progress to date and interim measures completed	
<u>E. coli Positive Source Sample</u> : include date of sample, date contamination was addressed as required by GWR and health effects language; and if not addressed, schedule for correction, interim measures, progress to date, interim measures completed.	
<b>VARIANCES/EXEMPTIONS (V/E)</b>	
Explain reason for the V/E, date issued, status report and opportunity for public participation in the V/E renewal	

**FM-C11-Attachment 4.** CCR Comment Letter or Convert to Email.

**INSTRUCTIONS:** Complete/select items shown in *italics* and underlined, and convert to regular font. Staff may apply minor editorial judgment for situational correctness. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner

Address 1

Address 2

City, State, Zip

Dear Waterworks Owner:

We are in receipt of the (select one- draft/final) Consumer Confidence Report (CCR) for (insert previous calendar year). We have completed our review and have the following comments/recommendations (from the list below, select and describe as appropriate):

1. In order to complete our review, we are requesting the following information: (List)
2. The following revisions are necessary to comply with the CCR Rule requirements: (List)
3. The following recommendations are offered: (List)
4. Other comments by field office (if applicable): (List)

You are reminded that July 1, (insert current year) is the last day to distribute the final CCR to your customers and forward a copy to this field office, and that October 1, (insert current year) is the last day to submit the signed certification form to the field office. Please address these comments and re-submit the completed CCR no later than (insert a deadline for the re-submittal; e.g., no later than June 15 of current year).

If you have any questions or concerns regarding this matter, please contact me at (phone number) or email at (email address).

Sincerely,

Name & Title  
Field office name

ABC:xyz

## GENERAL PREPARATION GUIDELINES FOR CONSUMER CONFIDENCE REPORTS

Virginia Department of Health – Office of Drinking Water

### IMPORTANT NOTES:

1. Only the reporting requirements for the existing rules and regulations are required.
2. Any Unregulated Contaminant Rule (UCMR) sampling results from participating waterworks for the CCR reporting year are to be included if required by the regulations.
3. The special monitoring results for sodium are to be included in the CCR (in accordance with 40 CFR § 141.41 and 12VAC5-590-545 C 5 f).

### Important Deadlines to Remember\*

<b>May 1,</b>	<b>Last day</b> to submit a draft copy of the CCR to your Field Office (FO) if a review is desired before the CCR is distributed. The review may take two to four weeks.
<b>July 1,</b>	<b>Last day</b> to distribute the CCR to customers, and submit a copy to your FO, covering water quality data for the CCR reporting calendar year.
<b>October 1,</b>	<b>Last day</b> to send signed certification form to your FO.

\*The deadlines are based on the year following the CCR reporting year.

### Actions to be taken as a reminder on the Revised Total Coliform Rule (RTCR)

#### 1. Health Effects Language (RTCR):

Health effects language for total coliform bacteria is used when assessments are required to be performed. The following health effects language applies to *E. coli*.

- If a Level 1 or Level 2 Assessment is required (not due to an *E. coli* Primary Maximum Contaminant Level (PMCL) violation):

*“Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system. We found coliforms indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct assessments to identify problems and to correct any problems that are found.”*

- If an *E. coli* PMCL violation occurs:

*“E. coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Human pathogens in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a greater health risk for infants, young children, the elderly, and people with severely-compromised immune systems. We found E. coli bacteria, indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct assessment(s) to identify problems and to correct any problems that were found during these assessments.”*

#### 2. Reporting Changes:

There are NO reporting changes, except that the number of total coliform positives is no longer required in the “detects” table. However, the total number of positive *E. coli* samples must be reported in the “detects” table of contaminants (see below).

❖ **COMPLETING THE “DETECTS” TABLE**

- The detection of *E. coli* whether or not it is associated with an *E. coli* PMCL violation must be included in the “detects” table of contaminants. Detection *E. coli* but NO *E. coli* PMCL violation (optional text by the waterworks owner).

*If a waterworks detects E. coli and has not violated the E. coli PMCL, the waterworks owner must complete the “detects” table in the CCR, and may include a statement that explains that although they have detected E. coli, they are not in violation of the E. coli PMCL.*

- All other detects on the other rules are to be reported in the same manner as has been done in previous years.

❖ **REPORTING ON ASSESSMENTS NOT INVOLVING AN *E. coli* PMCL VIOLATION**

For a waterworks required to complete a Level 1 or a Level 2 assessment that is NOT due to an *E. coli* PMCL violation, the CCR must include the specific text for the following:

▪ **Presence of coliforms**

*Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system. We found coliforms indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct assessments to identify problems and to correct any problems that are found.*

▪ **Activity associated with a Level 1 assessment (fill-in-the-blank)**

*During the past year, we were required to conduct (\_\_\_\_insert the number of Level 1 assessments) Level 1 assessments. (\_\_\_\_insert the number of Level 1 assessments) Level 1 assessments were completed. In addition, we were required to take (\_\_\_\_insert the number of corrective actions) corrective actions and we completed (\_\_\_\_insert the number of corrective actions) of these actions.*

▪ **Activity associated with a Level 2 assessment (fill-in-the-blank)**

*During the past year (\_\_\_\_insert the number of Level 2 assessments) Level 2 assessments were required to be completed for our waterworks. (\_\_\_\_insert the number of Level 2 assessments) Level 2 assessments were completed. In addition, we were required to take (\_\_\_\_insert the number of corrective actions) corrective actions and we completed (\_\_\_\_insert the number of corrective actions) of these actions.*

▪ **Waterworks failure to complete all required activities**

Any owner who failed to complete all of the required assessments or correct all identified sanitary defects shall also include one or both of the following statements in the CCR, as appropriate:

*a. During the past year, we failed to conduct all of the required assessments.*

*b. During the past year, we failed to correct all identified sanitary defects that were found during the assessments.*

❖ **REPORTING ON ASSESSMENTS INVOLVING AN *E. coli* PMCL VIOLATION**

For a waterworks required to complete a Level 2 assessment due to an *E. coli* PMCL violation, the CCR must include the specific text for the following:

▪ **Presence of *E. coli***

*E. coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Human pathogens in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a greater health risk for infants, young children, the elderly, and people with severely compromised immune systems. We found E. coli, indicating the*

*need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct assessments to identify problems and to correct any problems that are found.*

▪ **Activity associated with a Level 2 assessment (fill-in-the-blank)**

*We were required to complete a Level 2 assessment because we found *E. coli* in our waterworks. In addition, we were required to take (\_\_\_\_insert number of corrective actions) corrective actions and we completed (\_\_\_\_insert number of corrective actions) of these actions.*

▪ **Waterworks failure to complete all required activities**

Any owner who failed to complete all the required assessment or correct all identified sanitary defects shall also include one or both of the following statements in the CCR, as appropriate:

*a. We failed to conduct the required assessment.*

*b. We failed to correct all sanitary defects that were identified during the assessment that we conducted.*

▪ **Detection of *E. coli* and incurring an *E. coli* PMCL violation**

If a waterworks detects *E. coli* and has violated the *E. coli* PMCL, the waterworks owner must complete the “detects” table in the CCR, and shall include one or more of the following statements to describe any noncompliance, as applicable:

*a. We had an *E. coli*-positive repeat sample following a total coliform-positive routine sample.*

*b. We had a total coliform-positive repeat sample following an *E. coli*-positive routine sample.*

*c. We failed to take all the required repeat samples following an *E. coli*-positive routine sample.*

*d. We failed to test for *E. coli* when any repeat sample tested positive for total coliform.*

**General information**

- CCR must be mailed or directly delivered to all customers who receive a water bill, and a “good faith” effort must be made to reach other consumers who do not receive a water bill. Electronic delivery methods are allowed, and a separate summary/explanation is available from your FO.
- A copy of the CCR must be sent to your FO at the same time it is distributed to the customers, and a copy must be given to anyone who requests it.
- Waterworks serving fewer than 10,000 persons may publish the CCR in a local newspaper instead of mailing or direct delivery. The customers must be informed that the CCR will not be mailed, and a copy of the CCR will be made available to the public upon request.
- Waterworks owners should already have all the necessary information to complete the CCR. Contact your FO for any desired assistance.

**Table of detected contaminants**

- All regulated contaminants (as listed in Appendix O of the *Waterworks Regulations*; effective November 2, 2016) detected in compliance samples collected in the CCR reporting calendar year must be listed in a specific manner. Pay close attention to unique reporting requirements for finished water turbidities (applies to surface water sources), distribution system coliform bacteria and treatment technique triggers, and tap sample lead and copper results.
- The likely source of each detected contaminant must be included, using the best information available from the list of sources in Appendix O. Contact your FO or use this link: (<http://leg1.state.va.us/cgi-bin/legp504.exe?000+reg+12VAC5-590-1280Z15>) for a copy of Appendix O.
- Any waterworks participating in a UCMR program for which sampling results were received for samples collected in the CCR reporting year must include these results in the CCR.
- If compliance samples were not collected in CCR reporting year, then the most recent results from compliance samples collected in the four prior calendar years must be used. Do not use any sample results older than five years of the CCR reporting year.

- Total organic carbon (TOC) must be listed as a treatment technique (TT) by surface water systems if it was detected in the raw and finished water. Actual TOC concentrations and removal ratios do not have to be listed.
- Owners may want to include a brief statement at the end of the table to explain that many other contaminants were analyzed but were not detected. Otherwise, customers may think that no samples were collected. For example, if coliform bacteria were not detected during the entire year, it may be important to mention that.
- Listing of contaminants that were not detected or are not regulated is allowed, but the sample results should be placed in a separate table. Non-regulated contaminants include such things as iron, manganese, pH, hardness, alkalinity, MTBE, sodium and many others (contact your FO for more info). Owners may want to briefly mention these non-detected or non-regulated contaminants if customers may have a special interest in them.
- Although sodium is not regulated, owners are required to report the levels detected. Report sodium along with other unregulated or undetected contaminants.
- Consecutive (or secondary) waterworks must include all regulated contaminants detected in compliance samples collected in its own distribution system and regulated contaminants detected by the primary system (or wholesaler) at its water treatment plant(s) and entry point(s). Contact the primary system to obtain the necessary compliance results that pertain to the secondary system.

### Arsenic

If arsenic was detected at a level greater than 5 ppb but less than or equal to 10 ppb in the most recent compliance sample collected in the 5-year time period prior to the CCR reporting year, the following educational information must be included. This is in addition to the required information in the table of detected contaminants.

*“While your drinking water meets EPA’s standard for arsenic, it does contain low levels of arsenic. EPA’s standard balances the current understanding of arsenic’s possible health effects against the costs of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.”*

### Cryptosporidium

If any monitoring performed during the CCR reporting year indicated cryptosporidium may be present in the raw or finished water, a summary and explanation of the results must be included.

### Groundwater Systems

Special information must be included if the following conditions occurred (contact your FO for more details):

- A significant deficiency identified by the state during a sanitary survey remains uncorrected.
- A source water sample (triggered sample or an additional sample following a triggered sample) indicated the presence of fecal coliform or *E. coli*.

### Violations

Each violation for monitoring, reporting, PMCL, Maximum residual disinfectant level, and treatment technique (TT) that occurred during the CCR reporting year must be explained by describing the length of the violation, potential adverse health effects, and corrective actions taken. If a violation from an earlier year carried over into the CCR reporting year, it also must be reported. This is in addition to the information that must be included in the table of detected contaminants when an MCL or TT violation has occurred.

### Required additional health information for lead

The following language is mandatory for every waterworks regardless of the lead compliance sample results:

*“If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. [Insert name of waterworks] is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to two minutes before using water for*

*drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline (800-426-4791) or at <http://www.epa.gov/safewater/lead>.”*

Other information and suggestions to improve the CCR

- Provide the required location information on drinking water source(s) in very general terms. Due to security concerns, avoid including a detailed map or verbal location description.
- Include the same (or updated) source water assessment information as in all previous CCRs, plus any additional source water assessment information given to you by your FO for new sources recently placed into service.
- Include the same mandatory language required in all previous CCRs addressing vulnerable populations and contaminants reasonably expected to be in drinking water.
- Consider including information about planned water system improvements or water quality issues customers have expressed concern about.
- Waterworks have the option of using the EPA’s Web-based program, CCRiWriter, to prepare the CCR, or they may continue to use the existing formats of prior years. The CCRiWriter is available at:

<[https://ofmpub.epa.gov/apex/safewater/f?p=140:LOGIN\\_DESKTOP](https://ofmpub.epa.gov/apex/safewater/f?p=140:LOGIN_DESKTOP)>

It requires registration to the site, and a username and a password to login.



**FM-C11-Attachment 6.** CCR Certification Form (revised 6-24-2022).

**INSTRUCTIONS:** Waterworks Owner to complete & submit to your ODW Field Office.

**CONSUMER CONFIDENCE REPORT CERTIFICATION**

**Waterworks Name** \_\_\_\_\_ **PWSID No.** \_\_\_\_\_

INSTRUCTIONS for completing this certification form:

- All community waterworks must sign and date Part A and return the completed form to the VDH-ODW Field Office by October 1<sup>st</sup> to verify that CCR distribution was completed by July 1<sup>st</sup> as follows:
  - Non-electronic distribution means sending the full CCR to the consumer with one copy to ODW Field Office.
  - A sample of the document(s) (bill, bill insert, email, etc.) showing the full URL used in the electronic distribution of the full CCR must also be provided to the ODW Field Office.
- All community waterworks serving 10,000 or more persons and systems serving fewer than 10,000 persons not electing to use a mailing waiver must fill out Parts B and D.
- Community waterworks serving fewer than 10,000 persons electing to use a mailing waiver must fill out Part C.

**Part A** – I certify that the Consumer Confidence Report for calendar year \_\_\_\_\_ has been prepared and distributed in conformance with state and federal drinking water regulations governing consumer confidence reports. The distribution or publication was completed on the following date: \_\_\_\_\_.

Signature \_\_\_\_\_ Date \_\_\_\_\_

Title \_\_\_\_\_ Telephone \_\_\_\_\_

**Part B** – Systems serving 10,000 or more persons and systems serving fewer than 10,000 persons not electing to use a mailing waiver. Check all that apply. *System to include a COPY of the published CCR with this certification.*

- CCR distributed to customers by mail.
- CCR distributed to customers by direct delivery method other than mail. Describe: \_\_\_\_\_
- CCR posted on the Internet (required for systems serving 100,000 or more persons.)
- Good faith effort used to reach non-bill paying consumers (also complete Part C below).
- Good faith effort does not apply since all consumers receive water bills.
- CCR available to public upon request.

**Part C** – Systems serving fewer than 10,000 persons electing to use a mailing waiver. Check all that apply. *System to include a COPY of the published report or full newspaper page containing the full CCR with this certification.*

- CCR published in its entirety in local newspaper. *(Copy of newspaper CCR attached)*  
Name: \_\_\_\_\_ Date: \_\_\_\_\_
- Customers informed in newspaper that CCR will not be mailed. If other method used to inform customers, describe:
  - separate newspaper notice                       mail
  - door-to-door     posting
  - other method \_\_\_\_\_
- Customers and public informed in newspaper that CCR is available to public upon request.

**Part D** – Good faith effort to reach non-bill paying consumers. Check all that apply.

- posted CCR on Internet
- published CCR in local newspaper
- advertised CCR availability in local news media
- delivered multiple copies of CCR to single bill addresses serving multiple people
- other methods \_\_\_\_\_
- mailed CCR to postal patrons
- delivered CCR to community organizations
- posted CCR in public places - libraries, schools, community centers

**FM-C14-Attachment-Chart A. VAC Type Violations Listed in SDWIS.**

<b>Type</b>	<b>Description</b>	<b>This Means?</b>	<b>Triggering Event</b>	<b>ODW Action (see Note 1)</b>	<b>Corrective Action by Owner</b>	<b>Failure Consequences</b>	<b>Field Office Options</b>
A0	<b>12VAC5-590-190</b> NO WATERWORKS OPERATION PERMIT (new to ODW)	The owner does not have a valid Operation Permit and is serving customers.	No record of an Operation Permit on file when ODW staff becomes aware of it.	Issue an NOAV outlining requirements to obtain operation permit.	Comply with NOAV	Enforcement action or new NOAV at next Sanitary Survey.	Issue Temp permit. Central Office must concur if NOAV is not issued. May need to refer to Enforcement.
A1	<b>12VAC5-590-190</b> NO CONSTRUCTION PERMIT FOR MODIFICATION	Unauthorized construction for which a construction permit is required.	When staff becomes aware of it.	Issue immediate NOV and advise owner to submit "as-builts" plans & specifications for review & approval. Include county building official and other officials to receive copies of NOAV.	Owner submits "as-built" plans & specifications within specified deadline for review & approval.	Issue follow-up NOAV and initiate enforcement action.	Require owner to stop use of new equipment/source where appropriate; issue BWN; or other options approved by Central Office
A2	<b>12VAC5-590-190</b> EXCEEDANCE OF PERMITTED DESIGN CAPACITY	Exceeded the permitted design capacity (face of permit - capacity, connections, or "existing" criteria) as a monthly average.	SS, or review of MORs over a calendar quarter, or when staff becomes aware of it.	Issue NOAV with statement of corrective action necessary.	Owner submits corrective action plan within 30 days to return to permitted capacity or expand PWS.	Initiate enforcement	Once triggered, Field Office should work with waterworks to review & approve corrective actions.
A3	<b>12VAC5-590-190</b> OPERATING FACILITY BEYOND PERMIT CONDITION	Exceeded operating parameters other than the limiting parameter that establishes the permit capacity (i.e., filtration rate, sedimentation basin rates, etc.) or exceeded/violated Special Operating Requirements or the EDS.	SS or MOR or when/if staff becomes aware of it.	Verify the conditions at the facility; Special Investigation Survey may be conducted by ODW. If verified, issue NOAV.	Owner corrects operation or submits corrective action plan to return to permit condition, if necessary (30 calendar days)	Re-issue NOAV or Initiate enforcement	Once triggered, Field Office should work / initiate discussions with waterworks.
A4	<b>12VAC5-590-250</b> NEW WATERWORKS OR COMPONENTS IN SERVICE WITHOUT APPROVAL	PWS did not receive approval prior to operating new component, source, or entire waterworks. (Construction permit issued; no Statement of Completion, no final inspection, no satisfactory test results, etc.)	ODW finds out during SS or other means.	Issue an NOAV requiring Statement, disinfection, other. May need to take out of service until verification with ODW.	Comply with NOAV	Enforcement action or new NOAV at next Sanitary Survey.	ODW to authorize operation pending specific actions by owner / ODW.
B0	<b>12VAC5-590-370</b> NO BSSR	No approved BSSR.	ODW discovers that bacteriological sampling with no approved plan on record.	Issue an NOV and advise owner to submit plan within 30 days for review & approval.	Owner submits an approvable plan.	Reject samples and issue NOAV for failure to monitor.	If necessary issue BWN based on results received and Tier 1 PN (under 12VAC5-590 540)

Type	Description	This Means?	Triggering Event	ODW Action (see Note 1)	Corrective Action by Owner	Failure Consequences	Field Office Options
B1	<b>12VAC5-590-370</b> FAILURE TO FOLLOW APPROVED BSSR	Not collecting from sites specifically identified in the approved BSSR.	ODW discovers that bacteriological sampling is haphazard or no approved plan on record.	Field Office to issue letter as reminder or NOAV if failure has potentially significant impact on determining bacteriological quality.	Sampling at originally approved sites in accordance with approved plan or owner to revise BSSR to provide approved sites within 30 days.	Reject samples and issue NOAV for failure to monitor.	If necessary issue BWN based on results received and Tier 1 PN (under 12 VAC5-590-540).
B2	<b>12VAC5-590-461</b> LACKS PROPERLY LICENSED OPERATOR	No properly licensed Operator = license class does not meet waterworks class requirement. (for classified waterworks without primary or secondary Disinfection or Chemical Addition)	SS or MOR or other event indicates there is no properly licensed operator.	Field Office to issue NOAV immediately, with deadline specified. If inappropriate operator in charge, notify DPOR.	Waterworks to provide properly licensed operator within 30 days.	Issue follow-up NOAV(s)	After 6 months without correct operator, refer to ODW Enforcement.
B3	FAILURE TO FOLLOW APPROVED MONITORING PLAN		<b>DO NOT USE.</b>	<b>DO NOT USE.</b>	<b>DO NOT USE.</b>	<b>DO NOT USE.</b>	<b>DO NOT USE.</b>
B4	<b>12VAC5-590-200 A5</b> NO COMPREHENSIVE BUSINESS PLAN (Waterworks Business Operations Plan)	WBOP has not been submitted for an existing waterworks to be owned by a first-time owner in Virginia, as required	Discovery of ownership change, SS	Issue an NOAV outlining requirements for WBOP with deadline.	Submit approvable WBOP by deadline	New NOAV at next SS.	New owners: Issue Temp permit. HQ must concur if NOAV is not issued. May need to refer to Enforcement.
B5	<b>12VAC5-590-580</b> NO CCCP	This violation only occurs when there is NO approved program at an operating waterworks, and does not apply to minor revision of an existing CCCP. At existing waterworks, prior CCCP may be "inherited" from previous owner on change of ownership (see note 3).	<b>Permitted WW:</b> SS file review/ownership change <b>New WW:</b> Operation permit issuance process	<b>Permitted WW:</b> NOV w/ 30day deadline to present written compliance plan. <b>New WW:</b> Provide technical assistance as needed to develop CCP prior to Operation Permit issuance.	Submit approvable CCCP	<b>Permitted WW:</b> follow-up NOAV(s) <b>New WW:</b> do not issue Operation Permit permit.	<b>New WW:</b> If extenuating circumstances can be demonstrated by owner, issue Temp Operation Permit with Special Permit Requirements for CCCP.
B6	<b>12VAC5-590-600</b> FAILURE TO IMPLEMENT CCCP	CCCP is approved but no evidence that the entire program is implemented; i.e, no records of surveys, inspections, corrective action taken on devices, etc.	SS reveals failure to fully implement CCCP; as supported by owner's records (or lack thereof).	Field Office to issue NOV immediately with response deadline of 60 days.	Owner to provide written evidence to support that CCCP is effective and on-going.	Issue follow-up NOAV(s).	If no response or inadequate response after 6 months, refer to ODW Enforcement.

Type	Description	This Means?	Triggering Event	ODW Action (see Note 1)	Corrective Action by Owner	Failure Consequences	Field Office Options
C1	<b>12VAC5-590-530</b> FAILURE TO REPORT BY 10TH DAY OF MONTH	This is for late reporting when monitoring was conducted in the compliance period. Failure to provide required <b>sample results or MORs</b> by the 10th day of the month following the reporting period. Applies to: "routine" raw water MPNs, increased monitoring for GUDIs, and MORs.	For results that are reported late. Sample results and/or MORs received after the reporting deadline.	<b>Case 1:</b> For MORs and raw water MPNs that are reported late, Field Office to issue reminder letter. <b>Case 2:</b> For other sampling, issue NOV immediately.	Future sample results and /or MORs are submitted to Field Office on a timely basis.	<b>Case 1a</b> (MORs): 3 or more late reports in a 12 month period - Issue NOV. <b>Case 1b</b> (MPNs): issue reminder letter.	After 3 NOVs (case 1a & 2); i.e., over 3-year period, refer to ODW Enforcement.
C2	<b>12VAC5-590-Varies</b> STATE MONITORING VIOLATION	Failure to sample in the compliance period, or sampling at unapproved sites or inappropriate times (State required compliance monitoring; Not operational control). Examples: "routine" raw water MPNs, increased monitoring for GUDIs, consecutive system Stage 1 DBPs.	File, SS, results or MOR review, or whenever staff becomes aware.	Issue NOV	Owner conduct appropriate monitoring.	Issue follow-up NOV(s)	Refer to ODW Central for enforcement action.
C3	RELIABILITY PROBLEM	<b>12VAC5-590-360</b> Waterworks is unable to demonstrate the ability to provide pure water of adequate quantity and quality. As determined by the Field Office in conjunction with Technical Services. Examples are included (but not limited to) list in Attachment 2.	Whenever, however, staff becomes aware of it (SS or MOR surveillance, complaints, media, etc).	Verify reliability problem with field data and/or other observations. Request owner to provide corrective action plan within 30 days. Issue NOAV immediately if significant consequences.	Take immediate corrective action or submit written corrective action plan provided to field office for review.	Issue NOAV for failure to provide corrective action plan or to carry out plan.	If problem still persists, initiate discussions with owner regarding permit revocation and refer to ODW Enforcement. Written corrective action plan may not be needed under all circumstances. Plan should include timelines.
C4	<b>12VAC5-590-330</b> LACK OF MONITORING EQUIPMENT	Required monitoring equipment is absent, inoperable, or inaccurate.	SS reveals the absence of the required monitoring equipment or MOR review indicates potential problem.	Request that monitoring equipment be provided within 30 days via SS correspondence. Issue NOV immediately if significant consequences.	Provide monitoring equipment and obtain written confirmation of its use within 30 days.	Issue NOV for failure to provide required monitoring equipment.	After 3 consecutive NOVs refer to ODW Enforcement.
C5	<b>12VAC5-590-700</b> FAILURE TO METER WATER PRODUCTION	Failure to meter and/or report readings: 1 -Not having an operable meter in place to accurately measure production or 2 -failure to read meter or 3-failure to report results to ODW	SS reveals no meter present (and owner does not have a metering variance) or MOR review indicates potential problem.	Require meter installation/repair within 90 days.	Install or repair meter within 90 days. Start reading meter and reporting results to ODW within 30 days thereafter.	Issue NOV for failure to accurately meter production.	After 3 consecutive NOVs refer to ODW Enforcement.

Type	Description	This Means?	Triggering Event	ODW Action (see Note 1)	Corrective Action by Owner	Failure Consequences	Field Office Options
C6	12VAC5-590-510 LESS THAN 20 PSI AT SERVICE CONNECTION	20 psi is not provided at all service connections under all conditions of flow. Water main breaks and natural disaster incidents are excluded.	Complaint or report verified by ODW or other event (SS or MOR review) that ODW becomes aware of. Field Verification supported by chart recorder or pressure gauge.	Issue NOV	Owner to submit a corrective action plan within 30 days or show proof that problem has been resolved.	Issue NOV for failure to submit plan within 30 days. Cc: building official on NOV.	Require fire hydrants to be bagged or removed, deny waterline extensions, Initiate discussion regarding permit revocation.
C7	STATE MCL VIOLATION	A DBP or MRDL violation has occurred in a consecutive system.	A DBP or MRDL violation has occurred in a consecutive system.	Follow procedures for the equivalent federal violation	Follow procedures for the equivalent federal violation	Follow procedures for the equivalent federal violation	Follow procedures for the equivalent federal violation
C8	TURBIDITY PERFORMANCE, SW ONLY	<b>DO NOT USE.</b>	<b>DO NOT USE.</b>	<b>DO NOT USE.</b>	<b>DO NOT USE.</b>	<b>DO NOT USE.</b>	<b>DO NOT USE.</b>
C9	FAILURE TO NOTIFY CONSUMERS	Failure to issue Special Notices not linked to an MCL or TT: Do Not Drink / Do Not Use / Boil Water Advisory or Commissioner's Order  Consecutive system Stage 1 DBPR: DBP violation or Maximum Residual Disinfectant Level (MRDL )	Failure to provide the appropriate public notification completion statement (or to sustain the notification level).  DBP / MRDL violation - System did not submit completion report	Issue a Special Notice for acute situations. Issue an NOV for failure to perform public notice.	Provide public notification for non-acute situations within the required time	Warning letter from ODW Enforcement if Commissioner's Order violated	Worse case: initiate Enforcement discussion

**NOTES:**

1. Assess risk to human health and notify HQ and LHD of any immediate risk, take corrective action (issue BWN) immediately, if necessary.
2. New owner must submit in writing that he is adopting the previous plan as is or with changes noted.
3. C3: Refer to FM-C14-Attachment Chart B for examples.
4. C9: Public Notifications for Variances & Exemptions (12VAC5-590-540.) are not included here.

**FM-C14-Attachment-Chart B. VAC Violation Type C3 - Reliability Problem Examples.**

Major Category	Specific Category	Examples	Triggering Event	Corrective Action by Owner
Failure to reliably maintain treatment or chemical addition	General	Any component of waterworks treatment/infrastructure that impairs the waterworks ability to deliver the quantity and/or quality of water as permitted.	Sanitary Survey or Monthly Operation Report	Compliance Plan with dates
Failure to reliably maintain treatment or chemical addition	Chemical Feed: Chlorination	Failure to maintain required free chlorine residual; Failure to continuously feed chlorine; No free chlorine residual; No standby chlorinator (12VAC5-590-1001); Chlorinator functioning intermittently, not functioning, or not functioning properly; Inoperable gas scales.	Sanitary Survey or Monthly Operation Report	Replace or repair chlorinator (include spare); Submit incident report with plan of action and dates; Report free chlorine residual on Monthly Operation Report.
Failure to reliably maintain treatment or chemical addition	Chemical Feed: Corrosion Control	Poor or inconsistent operation of corrosion control treatment.	Sanitary Surveys	Compliance Plan with dates
Failure to reliably maintain treatment or chemical addition	Treatment	Need to replace filter media, filter control valves, rate of flow controls, Streaming Current Monitor (SCM) or Zeta Meter; Inadequate coagulation and settling.	Sanitary Surveys	Compliance Plan with dates
Failure to maintain Infrastructure	Well seal	Well sanitary seal not intact: broken, loose, or missing; Well casing not effectively sealed against entrance of water or contaminants; Cracked or missing well pad.	Sanitary Surveys	Compliance Plan with dates
Failure to maintain Infrastructure	Well house	Well house not secured; Fire damage to house left unrepaired; Solid waste next to the well house.	Sanitary Survey or Monthly Operation Report	Compliance Plan with dates
Failure to maintain Infrastructure	Well sources	Well offline; Serving more than 50 connections with only one well source.	Sanitary Survey or Monthly Operation Report	Compliance Plan with dates
Failure to maintain Infrastructure	Storage tanks	Tank needs rehab - pitted, rusted, or leaking; Tank overflow or drain lacking screen; Buried tanks; Tank offline (storage no longer adequate).	Sanitary Surveys	Compliance Plan with dates
Failure to maintain Infrastructure	Controls/Electrical	Unsafe electrical conditions (exposed wiring); No sight glass on hydro tank; Well/booster pump/hydro tank controls not working properly; Various equipment failures not corrected.	Sanitary Surveys	Compliance Plan with dates
Failure to maintain Infrastructure	Distribution system	Unaccounted for water exceeds 30% of production.	Monthly Operation Report	Compliance Plan with dates



**FM-C14-T1-Attachment 1.** Exceeding the Primary Maximum Contaminant Level (PMCL) for Nitrate.

**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 1 NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

## NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Exceeding the Primary Maximum Contaminant Level (PMCL) for Nitrate

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-382 B of the Virginia *Waterworks Regulations* (“Regulations”) for exceeding the Primary Maximum Contaminant Level (PMCL) of 10 mg/L for nitrate during the (monitoring period). The Regulations characterize this alleged violation as a Tier 1 violation.

Section 12VAC5-590-382 B states, in part, “Compliance with the PMCLs for nitrate and nitrite shall be determined based on the analytical results obtained at each sampling point.... Where nitrate or nitrite sample results exceed the PMCL, the owner shall collect a confirmation sample, from the same sampling point that exceeded the PMCL within 24 hours of the owner's receipt of the analytical results of the first sample.” The averaged result of the initial and confirmation samples was (#) mg/L.

(Field staff may want to insert a narrative to further describe this violation situation in this NOAV. Narrative to include observations, sampling results, dates, times, etc. where appropriate.)

### **Required Actions**

**Public Notice:** In accordance with Section 12VAC5-590-540 of the Regulations, you are required **within 24 hours** of learning of the violation to deliver a Public Notice (“Notice”) to the consumers in the area served by the waterworks. This Notice must be handled as follows:

- You must distribute the Notice no later than time on date. (Note to ODW staff: If applicable, this date and time must be within 24 hours from the time the waterworks became aware of the violation. It will usually be 24 hours from the consultation date and time.)



- The Notice must be distributed in a manner to reach all persons served by hand delivering the Notice to each connection, posting at conspicuous locations throughout the area served by the waterworks, and/or appropriate broadcast media such as television, radio, social media, or website.
- On a case-by-case basis, field staff may add any other public notification requirement as needed, and provide such details in this transmittal.

**Draft Notice:** Attached is a draft Tier 1 Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** (Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at *(phone number)* or email at *(email address)*.

Sincerely,

Name & Title  
Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 1 Public Notice
2. Certification Form

ec: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director. Administrator/Manager, name of County, County

## NOTICE TO CONSUMERS

### IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER (System) Has High Levels of Nitrate

#### DO NOT GIVE THE WATER TO INFANTS UNDER 6 MONTHS OLD OR USE IT TO MAKE INFANT FORMULA

State Health Officials have advised us of a failure to meet the Primary Maximum Contaminant Level (PMCL) for nitrate in accordance with the Virginia *Waterworks Regulations*. On *(give date)*, we received notice that the routine sample collected on *(give date)* and the confirmation sample collected on *(give date)* showed an averaged nitrate level of *(#)* mg/L. This is above the nitrate standard, or PMCL, of 10 mg/L.

Nitrate in drinking water is a serious health concern for infants less than six months old. Nitrate in drinking water can come from natural, industrial, or agricultural sources (including septic systems and run-off). Levels of nitrate in drinking water can vary throughout the year. *(Field staff may want to further describe the violation, to include specifics such as observations, concentration levels, dates, times, etc. to summarize situational correctness).*

#### **What should I do? What does this mean?**

➤ **DO NOT GIVE THE WATER TO INFANTS.**

*\*Infants younger than the age of six months who drink water containing nitrate in excess of the PMCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue baby syndrome.\**

- Blue baby syndrome is indicated by blueness of the skin. Symptoms in infants can develop rapidly, with health deteriorating over a period of days. If symptoms occur, seek medical attention immediately.
- Water, juice, and formula for children under six months of age should not be prepared with tap water. Bottled water or other water low in nitrates should be used for infants until further notice.
- **DO NOT BOIL THE WATER.** Boiling, freezing, filtering, or letting water stand does not reduce the nitrate level. Excessive boiling can make the nitrates more concentrated because nitrates remain behind when the water evaporates.
- Adults and children older than six months can drink the tap water (nitrate is a concern for infants because they can't process nitrates in the same way adults can). However, if you are pregnant or have specific health concerns, you may wish to consult your doctor.

General guidelines on ways to lessen the risk of nitrates are available from EPA's Safe Drinking Water Hotline at 1 (800) 426-4791.

#### **What is being done?**

*(Field staff to describe the corrective actions required by the waterworks owner and when the violations is expected to be resolved.)*

For more information, please contact *(name of contact)* at *(phone number)* or *(mailing address)*.

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by (system). State Water System ID#: \_\_\_\_\_.  
Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Exceeding the Primary Maximum Contaminant Level (PMCL) for Nitrate - tracking info – monitoring period

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
*(Community/Noncommunity Waterworks)*

By direct (hand) delivery on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_

Provided to the following broadcast media *(list: television/radio/website/social media)* on

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ *(method and date)*

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address

**FM-C14-T1-Attachment 2.** Exceeding the Primary Maximum Contaminant Level (PMCL) for Nitrite.

**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 1 NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

## NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner

Address 1

Address 2

City, State, Zip

Re: Exceedance of the Primary Maximum Contaminant Level (PMCL) for Nitrite

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-382 B of the Virginia *Waterworks Regulations* (“Regulations”) for exceeding the Primary Maximum Contaminant Level (PMCL) of 1.0 mg/L for nitrite during the (monitoring period). The Regulations characterize this alleged violation as a Tier 1 violation.

Section 12VAC5-590-382 B states, in part, “Compliance with the PMCLs for nitrate and nitrite shall be determined based on the analytical results obtained at each sampling point.... Where nitrate or nitrite sample results exceed the PMCL, the owner shall collect a confirmation sample, from the same sampling point that exceeded the PMCL within 24 hours of the owner's receipt of the analytical results of the first sample.” The averaged result of the initial and confirmation samples was [/#] mg/L.

(Field staff may want to insert a more detailed narrative to describe the sample results that are the basis for this NOAV. Narrative to include sample locations, dates and times where appropriate.)

### **Required Actions**

**Public Notice:** In accordance with Section 12VAC5-590-540 of the Regulations, you are required **within 24 hours** of learning of the violation to deliver a Public Notice (“Notice”) to the consumers in the area served by the waterworks. This Notice must be handled as follows:

- You must distribute the Notice no later than time on date. (Note to ODW staff: If applicable, this date and time must be within 24 hours from the time the waterworks became aware of the violation. It will usually be 24 hours from the consultation date and time.)
- The Notice must be distributed in a manner to reach all persons served by hand delivering the Notice to each connection, posting at conspicuous locations throughout the area served by the waterworks, and/or appropriate broadcast media such as television, radio, social media, or website.
- On a case-by-case basis, field staff may add any other public notification requirement as needed and provide such details in this transmittal.)

**Draft Notice:** Attached is a draft Tier 1 Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, if the information is accurate, and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than (date), you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** (Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at (phone number) or email at (email address).

Sincerely,

Name & Title  
Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 1 Public Notice
2. Certification Form

cc: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director.  
Administrator/Manager, name of County, County

## NOTICE TO CONSUMERS

### IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER (System) Has High Levels of Nitrite

#### DO NOT GIVE THE WATER TO INFANTS UNDER 6 MONTHS OLD OR USE IT TO MAKE INFANT FORMULA

State Health Officials have advised us of a failure to meet the Primary Maximum Contaminant Level (PMCL) for Nitrite in accordance with the Virginia *Waterworks Regulations*. On *(give date)*, we received notice that the routine sample collected on *(give date)* and the confirmation sample collected on *(give date)* showed an averaged nitrite level of *(#)* mg/L. This is above the nitrite standard, or PMCL, of 1.0 mg/L.

Nitrite in drinking water is a serious health concern for infants less than six months old. Nitrite in drinking water can come from natural, industrial, or agricultural sources (including septic systems and run-off). Levels of nitrite in drinking water can vary throughout the year. *(Field staff may want to insert a more detailed narrative to describe the sample results that are the basis for this NOAV. Narrative to include sample locations, results, dates and times where appropriate.)*

#### **What should I do? What does this mean?**

➤ **DO NOT GIVE THE WATER TO INFANTS.**

*\*Infants younger than the age of six months who drink water containing nitrite in excess of the PMCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue baby syndrome.\**

- Blue baby syndrome is indicated by blueness of the skin. Symptoms in infants can develop rapidly, with health deteriorating over a period of days. If symptoms occur, seek medical attention immediately.
- Water, juice, and formula for children under six months of age should not be prepared with tap water. Bottled water or other water low in nitrites should be used for infants until further notice.
- **DO NOT BOIL THE WATER.** Boiling, freezing, filtering, or letting water stand does not reduce the nitrite level. Excessive boiling can make the nitrites more concentrated, because nitrites remain behind when the water evaporates.
- Adults and children older than six months can drink the tap water (nitrite is a concern for infants because they can't process nitrites in the same way adults can). However, if you are pregnant or have specific health concerns, you may wish to consult your doctor.

General guidelines on ways to lessen the risk of nitrites are available from EPA's Safe Drinking Water Hotline at 1 (800) 426-4791.



**What is being done?**

*(Field staff to describe the corrective actions required by the waterworks owner and when the violations is expected to be resolved.)*

For more information, please contact *(name of contact)* at *(phone number)* or *(mailing address)*.

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by *(system)*. State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Exceeding the Primary Maximum Contaminant Level (PMCL) for Nitrite -  
(tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
*(Community/Noncommunity Waterworks)*

By direct (hand) delivery on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_

Provided to the following broadcast media *(list: television/radio/website/social media)* on

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ *(method and date)*

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
*Name* Field Office, Office of Drinking Water  
*Address*

**FM-C14-T1-Attachment 3.** Exceeding the Primary Maximum Contaminant Level (PMCL) for Combined Nitrate + Nitrite.

**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 1 NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

### NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

**Re:** Exceeding the Primary Maximum Contaminant Level (PMCL) for Combined Nitrate + Nitrite

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-372 D 3 of the Virginia *Waterworks Regulations* (“Regulations”) for exceeding the Primary Maximum Contaminant Level (PMCL) of 10 mg/L for combined nitrate and nitrite during the (monitoring period). The Regulations characterize this alleged violation as a Tier 1 violation.

Section 12VAC5-590-372 D 3 states, in part, “Monitoring to determine compliance with the PMCL for... combined nitrate-nitrite as nitrogen...shall be...(a)... one sample annually at each groundwater source entry point. (b)... one sample quarterly at each surface water source entry point, in whole or in part.”

(Field staff may want to insert a narrative to further describe this violation situation in this NOAV. Narrative to include observations, sampling results, dates, times, etc. where appropriate.)

#### **Required Actions**

**Public Notice:** In accordance with Section 12VAC5-590-540 of the Regulations, you are required **within 24 hours** of learning of the violation to deliver a Public Notice (“Notice”) to the consumers in the area served by the waterworks. This Notice must be handled as follows:

- You must distribute the Notice no later than *time on date*. (Note to ODW staff: If applicable, this date and time must be within 24 hours from the time the waterworks became aware of the violation. It will usually be 24 hours from the consultation date and time.)
- The Notice must be distributed in a manner to reach all persons served by hand delivering the Notice to each connection, posting at conspicuous locations throughout the area served by the waterworks, and/or appropriate broadcast media such as television, radio, social media, or website.
- On a case-by-case basis, field staff may add any other public notification requirement as needed, and provide such details in this transmittal.

**Draft Notice:** Attached is a draft Tier 1 Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** (Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at *(phone number)* or email at *(email address)*.

Sincerely,

Name & Title  
Field office name

ABC:xyz

Enclosures: *(If applicable, insert any other relevant information)*

1. Draft Tier 1 Public Notice
2. Certification Form

cc: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director.  
Administrator/Manager, name of County, County

## NOTICE TO CONSUMERS

### IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER (System) Has High Levels of Combined Nitrate and Nitrite

#### DO NOT GIVE THE WATER TO INFANTS UNDER 6 MONTHS OLD OR USE IT TO MAKE INFANT FORMULA

State Health Officials have advised us of a failure to meet the Primary Maximum Contaminant Level (PMCL) for combined nitrate-nitrite in accordance with the Virginia *Waterworks Regulations*. On *(give date)*, we received notice that the routine sample collected on *(give date)* and the confirmation sample collected on *(give date)* showed an averaged nitrate-nitrite level of *(#)* mg/L. This is above the nitrate-nitrite standard, or PMCL, of 10 mg/L.

Combined Nitrate and Nitrite in drinking water is a serious health concern for infants less than six months old. Nitrate-nitrite in drinking water can come from natural, industrial, or agricultural sources (including septic systems and run-off). Levels of nitrate-nitrite in drinking water can vary throughout the year. *(Field staff may want to further describe the violation, to include specifics such as observations, concentration levels, dates, times, etc. to summarize situational correctness).*

#### **What should I do? What does this mean?**

##### ➤ **DO NOT GIVE THE WATER TO INFANTS.**

*\*Infants younger than the age of six months who drink water containing nitrate and nitrite in excess of the PMCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue baby syndrome.\**

- Blue baby syndrome is indicated by blueness of the skin. Symptoms in infants can develop rapidly, with health deteriorating over a period of days. If symptoms occur, seek medical attention immediately.
- Water, juice, and formula for children under six months of age should not be prepared with tap water. Bottled water or other water low in nitrates should be used for infants until further notice.
- **DO NOT BOIL THE WATER.** Boiling, freezing, filtering, or letting water stand does not reduce the nitrate level. Excessive boiling can make the nitrates more concentrated, because nitrates remain behind when the water evaporates.
- Adults and children older than six months can drink the tap water (nitrate is a concern for infants because they can't process nitrates in the same way adults can). However, if you are pregnant or have specific health concerns, you may wish to consult your doctor.

General guidelines on ways to lessen the risk of nitrates and nitrites are available from EPA's Safe Drinking Water Hotline at 1 (800) 426-4791.

#### **What is being done?**

(Field staff to describe the corrective actions required by the waterworks owner and when the violations is expected to be resolved.)

For more information, please contact (name of contact) at (phone number) or (mailing address).

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by (system). State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Exceeding the Primary Maximum Contaminant Level (PMCL) for Combined Nitrate + Nitrite - (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
*(Community/Noncommunity Waterworks)*

By direct (hand) delivery on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_

Provided to the following broadcast media *(list: television/radio/website/social media)* on

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ *(method and date)*

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address



**FM-C14-T1-Attachment 4.** Failure to Collect a Confirmation Sample for Nitrate.

**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 1 NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

**NOTICE OF ALLEGED VIOLATION**

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Failure to Collect a Confirmation Sample for Nitrate

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Sections 12VAC5-590-12VAC5-590-382 B of the Virginia *Waterworks Regulations* (“Regulations”) for failure to collect a confirmation sample to determine compliance with the nitrate Primary Maximum Contaminant Level (PMCL) of 10 mg/L. Compliance is determined when the averaged result of the initial and confirmation samples is less than the PMCL. The initial sample result was (#) mg/L. The Regulations characterize this alleged violation as a Tier 1 violation.

Section 12VAC5-590-382 B states, in part, “Compliance with the PMCLs for nitrate...shall be determined based on the analytical results obtained at each sampling point.... Where nitrate...sample results exceed the PMCL, the owner shall collect a confirmation sample, from the same sampling point that exceeded the PMCL within 24 hours of the owner's receipt of the analytical results of the first sample....”

(Field staff may want to insert a more detailed narrative to describe the monitoring situation that led to this NOAV. Narrative to include dates and times where appropriate. )

**Required Actions**

**Public Notice:** In accordance with Section 12VAC5-590-540 of the Regulations, you are required **within 24 hours** of learning of the violation to deliver a Public Notice (“Notice”) to the consumers in the area served by the waterworks. This Notice must be handled as follows:

- You must distribute the Notice no later than *time on date*. (Note to ODW staff: If applicable, this date and time must be within 24 hours from the time the waterworks became aware of the violation. It will usually be 24 hours from the consultation date and time.)
- The Notice must be distributed in a manner to reach all persons served by hand delivering the Notice to each connection, posting at conspicuous locations throughout the area served by the waterworks, and/or appropriate broadcast media such as television, radio, social media, or website.
- On a case-by-case basis, field staff may add any other public notification requirement as needed and provide such details in this transmittal.)

**Draft Notice:** Attached is a draft Tier 1 Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** (Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at *(phone number)* or email at *(email address)*.

Sincerely,

Name & Title  
Field office name

ABC:xyz

Enclosures: *(If applicable, insert any other relevant information)*

1. Draft Tier 1 Public Notice
2. Certification Form

cc: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director.

Add other copyholders where applicable.

Administrator/Manager, name of County, County

**NOTICE TO CONSUMERS  
of the Name WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Failure to Collect a Confirmation Sample for Nitrate**

**DO NOT GIVE THE WATER TO INFANTS UNDER 6 MONTHS OLD OR USE IT TO  
MAKE INFANT FORMULA**

We are required to monitor your drinking water for nitrate on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. On *(give date)*, we received notice that the sample collected on *(give date)* showed nitrate levels above the nitrate standard, or primary maximum contaminant level (PMCL), of 10 mg/L. We were required to take a confirmation sample within 24 hours. We did not collect the required confirmation sample. Therefore, we cannot be sure of the quality of your drinking water during that time. Compliance is determined as the averaged result of the initial and confirmation samples being less than the PMCL. The initial sample result was *(#)* mg/L. *(Field staff may want to provide additional details that led to this NOAV).*

Nitrate in drinking water is a serious health concern for infants. Nitrate in drinking water can come from natural, industrial, or agricultural sources (including septic systems and run-off). Levels of nitrate in drinking water can vary throughout the year.

**What should I do? What does this mean?**

➤ **DO NOT GIVE THE WATER TO INFANTS.**

*\*Infants younger than the age of six months who drink water containing nitrate in excess of the PMCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue baby syndrome.\**

- Blue baby syndrome is indicated by blueness of the skin. Symptoms in infants can develop rapidly, with health deteriorating over a period of days. If symptoms occur, seek medical attention immediately.
- Water, juice, and formula for children under six months of age should not be prepared with tap water. Bottled water or other water low in nitrates should be used for infants until further notice.
- **DO NOT BOIL THE WATER.** Boiling, freezing, filtering, or letting water stand does not reduce the nitrate level. Excessive boiling can make the nitrates more concentrated, because nitrates remain behind when the water evaporates.
- Adults and children older than six months can drink the tap water (nitrate is a concern for infants because they can't process nitrates in the same way adults can). However, if you are pregnant or have specific health concerns, you may wish to consult your doctor.

General guidelines on ways to lessen the risk of nitrates are available from EPA's Safe Drinking Water Hotline at 1 (800) 426-4791.

**What is being done?**

*(Field staff to describe the corrective actions required by the waterworks owner and when the system expects to return to compliance.)*

For more information, please contact *(name of contact)* at *(phone number)* or *(mailing address)*.

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by *(system)*. State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Failure to Collect a Confirmation Sample for Nitrate - (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
*(Community/Noncommunity Waterworks)*

By direct (hand) delivery on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_

Provided to the following broadcast media *(list: television/radio/website/social media)* on

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ *(method and date)*

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
*Name* Field Office, Office of Drinking Water  
*Address*

**FM-C14-T1-Attachment 5.** Failure to Collect a Confirmation Sample for Nitrite.

**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 1 NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

**NOTICE OF ALLEGED VIOLATION**

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Failure to Collect a Confirmation Sample for Nitrite

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Sections 12VAC5-590-12VAC5-590-382 B of the Virginia *Waterworks Regulations* (“Regulations”) for failure to collect a confirmation sample to determine compliance with the nitrite Primary Maximum Contaminant Level (PMCL) of 1.0 mg/L. Compliance is determined when the averaged result of the initial and confirmation samples is less than the PMCL. The initial sample result was (#) mg/L. The Regulations characterize this alleged violation as a Tier 1 violation.

Section 12VAC5-590-382 B states, in part, “Compliance with the PMCLs for...nitrite shall be determined based on the analytical results obtained at each sampling point.... Where...nitrite sample results exceed the PMCL, the owner shall collect a confirmation sample, from the same sampling point that exceeded the PMCL within 24 hours of the owner's receipt of the analytical results of the first sample....”

(Field staff may want to insert a more detailed narrative to describe the monitoring situation that led to this NOAV. Narrative to include dates and times where appropriate.)

**Required Actions**

**Public Notice:** In accordance with Section 12VAC5-590-540 of the Regulations, you are required **within 24 hours** of learning of the violation to deliver a Public Notice (“Notice”) to the consumers in the area served by the waterworks. This Notice must be handled as follows:

- You must distribute the Notice no later than time on date. (Note to ODW staff: If applicable, this date and time must be within 24 hours from the time the waterworks became aware of the violation. It will usually be 24 hours from the consultation date and time.)
- The Notice must be distributed in a manner to reach all persons served by hand delivering the Notice to each connection, posting at conspicuous locations throughout the area served by the waterworks, and/or appropriate broadcast media such as television, radio, social media, or website.
- On a case-by-case basis, field staff may add any other public notification requirement as needed and provide such details in this transmittal.)

**Draft Notice:** Attached is a draft Tier 1 Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than (date), you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** (Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at (phone number) or email at (email address).

Sincerely,

Name & Title  
Field office name

ABC:xyz



Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 1 Public Notice
2. Certification Form

cc: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director.  
Administrator/Manager, name of County, County

**NOTICE TO CONSUMERS  
of the Name WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Failure to Collect a Confirmation Sample for Nitrite**

**DO NOT GIVE THE WATER TO INFANTS UNDER 6 MONTHS OLD OR USE IT TO  
MAKE INFANT FORMULA**

We are required to monitor your drinking water for nitrite on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. On *(give date)*, we received notice that the sample collected on *(give date)* showed nitrite levels above the nitrite standard, or primary maximum contaminant level (PMCL), of 1.0 mg/L. We were required to take a confirmation sample within 24 hours. We did not collect the required confirmation sample. Therefore, we cannot be sure of the quality of the drinking water during that time. Compliance is determined as the averaged result of the initial and confirmation samples being less than the PMCL. The initial sample result was *(#)* mg/L. *(Field staff may want to provide additional details that led to this NOAV).*

Nitrite in drinking water is a serious health concern for infants. Nitrite in drinking water can come from natural, industrial, or agricultural sources (including septic systems and run-off). Levels of nitrite in drinking water can vary throughout the year.

**What should I do? What does this mean?**

➤ **DO NOT GIVE THE WATER TO INFANTS.**

*\*Infants younger than the age of six months who drink water containing nitrite in excess of the PMCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue baby syndrome.\**

➤ Blue baby syndrome is indicated by blueness of the skin. Symptoms in infants can develop rapidly, with health deteriorating over a period of days. If symptoms occur, seek medical attention immediately.

➤ Water, juice, and formula for children under six months of age should not be prepared with tap water. Bottled water or other water low in nitrites should be used for infants until further notice.

➤ **DO NOT BOIL THE WATER.** Boiling, freezing, filtering, or letting water stand does not reduce the nitrite level. Excessive boiling can make the nitrites more concentrated, because nitrites remain behind when the water evaporates.

➤ Adults and children older than six months can drink the tap water (nitrite is a concern for infants because they can't process nitrites in the same way adults can). However, if you are pregnant or have specific health concerns, you may wish to consult your doctor.

General guidelines on ways to lessen the risk of nitrites are available from EPA's Safe Drinking Water Hotline at 1 (800) 426-4791.

**What is being done?**

*(Field staff to describe the corrective actions required by the waterworks owner and when the system expects to return to compliance.)*

For more information, please contact *(name of contact)* at *(phone number)* or *(mailing address)*.

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by *(system)*. State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Failure to Collect a Confirmation Sample for Nitrite - (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
(Community/Noncommunity Waterworks)

By direct (hand) delivery on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_

Provided to the following broadcast media (list: television/radio/website/social media) on

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ (method and date)

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address

**FM-C14-T1-Attachment 6.** Noncommunity (TNC) Waterworks Exceeding 20 mg/L Nitrate Limit.  
**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 1 NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

## NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Noncommunity (TNC) Waterworks Exceeding 20 mg/L Nitrate Limit

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-382 B 1 of the Virginia *Waterworks Regulations* (“Regulations”) for exceeding the 20 mg/L allowed nitrate limit in a noncommunity (TNC) waterworks. The Regulations characterize this alleged violation as a Tier 1 violation.

12VAC5-590-382 B 1 states, in part, “Nitrate nitrogen (NO<sub>3</sub>-N) levels not exceeding 20 mg/L may be allowed in a noncommunity waterworks if the owner: a. Demonstrates to the satisfaction of the [Virginia Department of Health] that this water will not be available to children under six months of age; b. Provides continuous posting of the fact that NO<sub>3</sub>-N levels exceed 10 mg/L and the potential health effects of exposure; c. Notifies health officials annually of NO<sub>3</sub>-N levels that exceed 10 mg/L; and d. The [Virginia Department of Health] shall determine that no adverse health effects will result.”

(Field staff may want to insert a more detailed narrative to describe the sample results that are the basis of this NOAV. Narrative to include sample locations, results, dates and times where appropriate.)

### **Required Actions**

In accordance with Section 12VAC5-590-540 of the Regulations, a State violation requires you issue a Public Notice (“Notice”) to the consumers in the area served by the waterworks in accordance with the public notification requirements described below:

**Public Notice:** The Tier 1 Notice requires you to notify consumers in the area served **within 24 hours** of learning of the violation. This Notice must be handled as follows:

- You must distribute the Notice no later than *time on date*. *(Note to ODW staff: If applicable, this date and time must be within 24 hours from the time the waterworks became aware of the violation. It will usually be 24 hours from the consultation date and time.)*
- The Notice must be distributed in a manner to reach all persons served by hand delivering the Notice to each connection, posting at conspicuous locations throughout the area served by the waterworks, and/or appropriate broadcast media such as television, radio, social media, or website.
- *On a case-by-case basis, field staff may add any other public notification requirement as needed and provide such details in this transmittal.)*

**Draft Notice:** Attached is a draft Tier 1 Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at *(phone number)* or email at *(email address)*.

Sincerely,

*Name & Title*  
*Field office name*

ABC.xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 1 Public Notice
2. Certification Form

cc: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director.  
Administrator/Manager, name of County, County

## NOTICE TO CONSUMERS

### IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER DRINKING WATER WARNING

**(System) Water Has High Levels of Nitrate Greater Than 20 mg/L**

### **DO NOT GIVE THE WATER TO INFANTS UNDER 6 MONTHS OLD OR USE IT TO MAKE INFANT FORMULA**

State Health Officials have advised us that water sample results show nitrate levels of *(level and units)*. These results are above the nitrate standard or primary maximum contaminant level (PMCL) of 10 mg/l. Nitrate in drinking water is a serious health concern for infants less than six months old. We were given permission by the Virginia Department of Health, Office of Drinking Water to provide water in excess of the standard as long as:

- Nitrate levels do not exceed 20 mg/L.
- The water is not made available to children under 6 months of age.
- We continuously post this notice meeting all public notice requirements.
- Local and state health officers are notified annually.
- No adverse health effects result.

Nitrate in drinking water is a serious health concern for infants less than six months old. Nitrate in drinking water can come from natural, industrial, or agricultural sources (including septic systems and run-off). Levels of nitrate in drinking water can vary throughout the year. *(Field staff may want to insert a more detailed narrative to describe the sample results that are the basis for this NOAV. Narrative to include sample locations, results, dates and times where appropriate.)*

#### **What should I do? What does this mean?**

##### **➤ DO NOT GIVE THE WATER TO INFANTS.**

*\*Infants younger than the age of six months who drink water containing nitrate in excess of the PMCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue baby syndrome.\**

- Blue baby syndrome is indicated by blueness of the skin. Symptoms in infants can develop rapidly, with health deteriorating over a period of days. If symptoms occur, seek medical attention immediately.
- Water, juice, and formula for children under six months of age should not be prepared with tap water. Bottled water or other water low in nitrates should be used for infants until further notice.
- **DO NOT BOIL THE WATER.** Boiling, freezing, filtering, or letting water stand does not reduce the nitrate level. Excessive boiling can make the nitrates more concentrated, because nitrates remain behind when the water evaporates.
- Adults and children older than six months can drink the tap water (nitrate is a concern for infants because they can't process nitrates in the same way adults can). However, if you are pregnant or have specific health concerns, you may wish to consult your doctor.



General guidelines on ways to lessen the risk of nitrates are available from EPA's Safe Drinking Water Hotline at 1 (800) 426-4791.

**What is being done?**

*(Field staff to describe the corrective actions required by the waterworks owner and when the violations is expected to be resolved.)*

For more information, please contact *(name of contact)* at *(phone number)* or *(mailing address)*.

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by *(system)*. State Water System ID#: \_\_\_\_\_.  
Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Noncommunity (TNC) Waterworks Exceeding 20 mg/L Nitrate Limit - (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
*(Noncommunity Waterworks)*

Posted on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_  
\_\_\_\_\_

By direct (hand) delivery on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

By mail delivery on \_\_\_\_\_ *(date)*

Other approved method \_\_\_\_\_ *(method and date)*

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address

**FM-C14-T1-Attachment 7. *E. coli* PMCL Exceedance and Level 2 Assessment Required.**

**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 1 NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined, and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

**NOTICE OF ALLEGED VIOLATION  
and  
NOTICE OF LEVEL 2 ASSESSMENT REQUIRED**

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner

Address 1

Address 2

City, State, Zip

Re: *E. coli* PMCL Exceedance and Level 2 Assessment Required

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-380 B 2 of the Virginia *Waterworks Regulations* (“Regulations”) for exceeding the Primary Maximum Contaminant Level (PMCL) for *E. coli* bacteria during the (monitoring period – month or calendar quarter, and year) monitoring period. The Regulations characterize this alleged violation as a Tier 1 violation.

Section 12VAC5-590-380 B 2 states, “Compliance shall be determined with the PMCL for *E. coli* for each monitoring period for which monitoring for total coliforms is required.”

Choose one or more paragraphs as appropriate from below:

According to our records, a routine bacteriological sample collected from the distribution system on (date routine sample collected), was total coliform-positive. (number – spell out) of the three repeat samples collected on (date repeat samples collected), (select one) *E. coli*-positive.

According to our records, a routine bacteriological sample collected from the distribution system on (date routine sample collected) was *E. coli*-positive. (number – spell out) of the three repeat samples collected on (date repeat samples collected), (select one) total coliform-positive.

In addition, our records do not indicate receipt of the analyses for all of the required repeat samples following an *E. coli*-positive routine sample collected on (date routine sample collected).

According to our records, an *E. coli* analysis was not performed on the repeat sample collected on (date repeat samples collected), which tested total coliform-positive.

**This is a serious health concern.** The presence of *E. coli* bacteria in drinking water is serious because these bacteria are usually associated with sewage or animal wastes (fecal contamination) and indicate that the water may be contaminated with organisms that can cause disease. *E. coli* bacteria in drinking water are generally a result of contaminated source water, inadequate water treatment, and/or contaminated distribution piping.

Consequently, a coliform treatment technique was triggered due to an *E. coli* bacteria PMCL exceedance. You are hereby notified that a Level 2 Assessment must be completed in accordance with 12VAC5-590-392 of the Regulations. A Level 2 Assessment will be conducted by staff from this Office. You were contacted on (date), and a site visit to conduct the Assessment is scheduled for (date).

### **Required Actions**

**Consultation:** The Regulations require waterworks owners to initiate consultation with this Office within 24 hours of learning of an *E. coli* bacteria PMCL violation. According to our records, the consultation took place at (time) on (date). At that time, (staff name) described public notification requirements and (select one) you a copy of this letter and a draft Notice to Consumers (“Notice”).

In accordance with Section 12VAC5-590-540 of the Regulations, you are required to issue a Tier 1 Public Notice (“Notice”) to the consumers in the area served by the waterworks in accordance with the public notification requirements described below:

**Public Notice:** This is a Tier 1 situation. Section 12VAC5-590-540 of the Regulations requires you to notify consumers in the area served by the waterworks **within 24 hours** of learning whenever the PMCL for *E. coli* bacteria is exceeded. This Notice must be handled as follows:

- You must distribute the Notice no later than time on date. (Note to ODW staff: If applicable, this date and time must be within 24 hours from the time the waterworks became aware of the violation. It will usually be 24 hours from the consultation date and time.)
- The Notice must be distributed in a manner to reach all persons served by hand delivering the Notice to each connection, posting at conspicuous locations throughout the area served by the waterworks, and/or appropriate broadcast media such as television, radio, social media, or website.
- Additional public notification may be required depending on the outcome of the Level 2 Assessment findings.
- On a case-by-case basis, field staff may add any other public notification requirement as needed, and provide such details in this transmittal.)

**Draft Notice:** Attached is a draft Tier 1 Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any "calling out" for a mutually agreeable schedule and/or completion dates for each corrective action. This would include the field office participation in the completion of a Level 2 Assessment.)*

*(If applicable, include paragraph below):*

*(Section 12VAC5-590-370 A 13 a of the Regulations requires owners who collect routine samples on a quarterly frequency to collect three additional routine samples during the next month following one or more total coliform-positive samples in accordance with your approved Bacteriological Sample Siting Plan).*

### **Level 2 Assessment - Additional Information**

A Level 2 Assessment is an in-depth evaluation of conditions throughout the waterworks to determine possible causes for the presence of *E. coli* bacteria. Sanitary defects, which are conditions that could provide a pathway of entry for microbial contamination into the distribution system, identified by the Assessment are to be noted and corrected. A schedule of corrective action(s) must be included in the Assessment for defects not corrected by the Assessment due date.

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

As a reminder, staff from this Office will meet with *(note the name of the approved waterworks representative with whom staff will be meeting)* on *(date)*, to conduct the Level 2 Assessment.

If you have any questions or concerns regarding this matter, please contact me at *(phone number)* or email at *(email address)*.

Sincerely,

Name & Title  
Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 1 Public Notice
2. Certification Form

cc: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director.  
Add other copyholders where applicable.  
Administrator/Manager, name of County, County

**NOTICE TO CONSUMERS  
of the Name WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**E. coli PMCL Exceedance**

**BOIL YOUR WATER BEFORE USING**

State Health Officials have advised us of a failure to meet the Primary Maximum Contaminant Level (PMCL) for *Escherichia coli* (*E. coli*) in accordance with the Virginia *Waterworks Regulations*. Water served to our customers during (monitoring period – month or calendar quarter, and year) did not comply with the PMCL because *E. coli* was detected in (# of samples) collected from our distribution system on (date routine sample collected) (include if applicable) and in follow-up samples on (date repeat samples collected).

*\*E. coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Human pathogens in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a greater health risk for infants, young children, the elderly, and people with severely compromised immune systems.\**

We violated the standard for *E. coli*, indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct a detailed assessment to identify problems and to correct any problems that are found.

General guidelines on ways to lessen the risk of infection by microbes are available from EPA's Safe Drinking Water Hotline at 1 (800) 426-4791.

**What should I do? What does this mean?**

State Health Officials feel there is a need for concern about the safety of your water. Consumers at risk should seek advice from their health care providers about drinking this water. Therefore, until further notice:

**DO NOT DRINK TAP WATER WITHOUT BOILING IT FIRST**

Bring all tap water to a rolling boil, let it boil for one minute, and let it cool before using, or use bottled water. Boiled or bottled water should be used for drinking, beverage and food preparation, brushing teeth, and making ice. Boiling kills bacteria and other disease-causing microorganisms in the water. Boiling is the preferred method to assure that the tap water is safe to drink. Water does not need to be boiled for washing clothes, bathing, washing dishes, or other uses where water is not ingested. However, care should be taken not to allow children or infants to drink bath water or allow it to get into their mouths.

**If you cannot boil your tap water:**

- An alternative method of purification for residents that do not have gas or electricity available is to use liquid household bleach to disinfect water. The bleach product should be recently purchased, free of additives and scents, and should contain a hypochlorite solution of at least 5.25%. Public health officials recommend adding eight (8) drops of bleach (about ¼ teaspoon) to each gallon of water. The water should be stirred and allowed to stand for at least 30 minutes before use.
- Water purification tablets may also be used by following the manufacturer’s instructions.
- Potable water is available at the following locations:

*(Waterworks to list locations where water is available and any special instructions):*

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**CONSUMING WATER FROM WATER SOURCES OF UNTESTED AND UNKNOWN QUALITY MAY POSE A THREAT TO YOUR HEALTH**

**What is being done?**

State Health Officials will be conducting an assessment of our waterworks to determine the possible cause for the detection of *E. coli* in our distribution system. We will be following up with all corrective actions noted in their assessment. You will be notified of future developments. We will inform you when tests show no bacteria and you no longer need to boil your water.

We expect this situation to be resolved by \_\_\_\_\_ . (date)

For more information, please contact:

\_\_\_\_\_ (owner or operator)

\_\_\_\_\_ (mailing address)

(\_\_\_\_\_) \_\_\_\_\_ - \_\_\_\_\_ (telephone number)

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by (system). State Water System ID#: \_\_\_\_\_ .

Date distributed: \_\_\_\_\_ .

SUBJECT: County/City  
Waterworks: Waterworks Name



PWSID No: PWSID

VIOLATION: *E. coli* PMCL Exceedance and Level 2 Assessment Required - (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
(Community/Noncommunity Waterworks)

By direct (hand) delivery on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_

Provided to the following broadcast media (list: television/radio/website/social media) on

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ (method and date)

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address

**FM-C14-T1-Attachment 8.** Exceeding the Average PMCL for Chlorite.

**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 1 NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

### NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner

Address 1

Address 2

City, State, Zip

Re: Exceeding the Average Primary Maximum Contaminant Level (PMCL) for Chlorite

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-384 B 3 of the Virginia *Waterworks Regulations* (“Regulations”) for exceeding the primary maximum contaminant level (PMCL) for chlorite using the arithmetic average of any three sample sets. The PMCL for chlorite is 1.0 mg/L, whereas the averaged analytical result was (#) mg/L.

Section 12VAC5-590-384 B 3 states, in part, “Compliance shall be based on an arithmetic average of each three-sample set collected in the distribution system.... If the arithmetic average of any three-sample set exceeds the PMCL listed in Table 340.6, then the owner is in violation of the PMCL and shall notify the public pursuant to 12VAC5-590-540 A 2, in addition to reporting to the [Virginia Department of Health] pursuant to 12VAC5-590-530 and 12VAC5-590-531.”

The Virginia Department of Health classifies this alleged violation as Tier 2 pursuant to 12VAC5-540-A 2 a, which includes as Tier 2 violations, “All violations of the PMCL..., except where a Tier 1 public notice is required or where the [Virginia Department of Health] determines a Tier 1 notice is required instead....”

(Field staff may want to insert a narrative to further describe this violation situation in this NOAV. Narrative to include observations, sampling results, dates, times, etc. where appropriate.)

## **Required Actions**

In accordance with Section 12VAC5-590-540 A 2 of the Regulations, you are required to issue a Tier 2 public notice (“Notice”) to the consumers in the area served by the waterworks in accordance with the public notification requirements described below:

**Public Notice:** This Notice requires you to notify consumers in the area served **within 30 days** following receipt of this letter. This Notice must be handled as follows:

- You must distribute the Notice no later than *(date)*.
- The Notice must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example), you must also use other delivery methods to provide the Notice to these consumers as well. Examples of other methods include, but are not limited to, publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the waterworks.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved.)*
- You must repeat distribution of the Notice every three months, for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved.)*

**Draft Notice:** Attached is a draft Tier 2 Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil

charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at (phone number) or email at (email address).

Sincerely,

Name & Title

Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Public Notice
2. Certification Form

cc: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director. Administrator/Manager, name of County, County

**NOTICE TO CONSUMERS  
of the Name WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Exceeding the Average Primary Maximum Contaminant Level (PMCL) for Chlorite**

State Health Officials have advised us of a failure to meet the Primary Maximum Contaminant Level (PMCL) for chlorite in accordance with the Virginia *Waterworks Regulations*. During the (*monitoring period*), the averaged analytical results of samples collected and tested for chlorite was (#) mg/L. This was above the PMCL of 1.0 mg/L for chlorite.

**What should I do? What does this mean?**

**DO NOT USE THIS WATER IF YOU ARE PREGNANT OR GIVE IT TO YOUNG CHILDREN.**

Bottled water should be used until further notice.

*\*Some infants and young children who drink water containing chlorite in excess of the PMCL could experience nervous system effects. Similar effects may occur in fetuses of pregnant women who drink water containing chlorite in excess of the PMCL. Some people may experience anemia.\**

There are no obvious symptoms, but chlorite can affect development of the nervous system.

- Water, juice, and formula for young children and for pregnant women should not be prepared with the tap water.
- Adults who are not pregnant and older children can drink the tap water because their nervous systems are already developed. However, if you have specific health concerns, you may wish to consult your doctor or healthcare provider.

**What is being done?**

*(Field staff to describe the corrective actions required by the waterworks owner and when the violation is expected to be resolved.)*

For more information, please contact (*name of contact*) at (*phone number*) or (*mailing address*).

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by (*system*). State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Exceeding the Average Primary Maximum Contaminant Level (PMCL) for Chlorite - (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
*(Community Waterworks)*

By direct (hand) delivery on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_

Provided to the following broadcast media *(list: television/radio/website/social media)* on

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ *(method and date)*

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
*Name* Field Office, Office of Drinking Water  
*Address*

**FM-C14-T1-Attachment 9.** Failure to Test for *E. coli* after any TC+ Repeat Sample.

**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 1 NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

## NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Failure to Test for *E. coli* after any total coliform-positive Repeat Sample

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Sections 12VAC5-590-12VAC5-590-380 F 1 of the Virginia *Waterworks Regulations* (“Regulations”) for failure to test for *E. coli* after any total coliform-positive repeat sample. The Regulations characterize this alleged violation as a Tier 1 violation.

Section 12VAC5-590-380 F 1 states, in part, “If a routine, repeat, or replacement sample is total coliform positive, then the owner shall analyze the total coliform-positive culture medium to determine if *E. coli* are present.”

Section 12VAC5-590-380 B 1 states, in part, “A violation may pose an acute risk to public health and is a Tier 1 condition requiring public notification as described in 12VAC5-590-540 A 1 when:...d. The owner fails to test for *E. coli* when any repeat sample tests positive for total coliform.”

(Field staff may want to insert a more detailed narrative to describe the monitoring situation that led to this NOAV. Narrative to include dates and times where appropriate. )

### **Required Actions**

**Public Notice:** In accordance with Section 12VAC5-590-540 of the Regulations, you are required **within 24 hours** of learning of the violation to deliver a Public Notice (“Notice”) to the consumers

in the area served by the waterworks. This Notice must be handled as follows:

- You must distribute the Notice no later than time on date. *(Note to ODW staff: If applicable, this date and time must be within 24 hours from the time the waterworks became aware of the violation. It will usually be 24 hours from the consultation date and time.)*
- The Notice must be distributed in a manner to reach all persons served by hand delivering the Notice to each connection, posting at conspicuous locations throughout the area served by the waterworks, and/or appropriate broadcast media such as television, radio, social media, or website.
- On a case-by-case basis, field staff may add any other public notification requirement as needed, and provide such details in this transmittal.

**Draft Notice:** Attached is a draft Tier 1 Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than (date), you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** (Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at (phone number) or email at (email address).

Sincerely,

Name & Title  
Field office name

ABC:xyz



Enclosures: *(If applicable, insert any other relevant information)*

1. Draft Tier 1 Public Notice
2. Certification Form

cc: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director.  
Administrator/Manager, name of County, County

**NOTICE TO CONSUMERS  
of the Name WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Primary Maximum Contaminant Level for *E. coli*  
Failure to Test for *E. coli* after any Total Coliform-Positive Repeat Sample**

We are required to monitor your drinking water on a regular basis. Results of regular monitoring are an indicator of whether our drinking water meets health standards. On *(give date)*, we failed to test for *E. coli* after a total coliform-positive repeat sample. Therefore, we cannot be sure of the quality of your drinking water during that time. The Virginia *Waterworks Regulations* consider this failure an exceedance of the Primary Maximum Contaminant Level for *E. coli*. *(Field staff may want to provide additional details that led to this NOAV).*

**What should I do?**

- There is nothing you need to do. You do not need to boil your water or take other corrective actions. However, if you have specific health concerns, consult your doctor.
- If you have a severely compromised immune system, have an infant, are pregnant, or are elderly, you may be at increased risk and should seek advice from your healthcare providers about drinking this water.

General guidelines on ways to lessen the risk of infection by microbes are available from EPA's Safe Drinking Water Hotline at 1-800-426-4791.

**What does this mean?**

This is not an emergency. If it had been, you would have been notified within 24 hours.

**What is being done?**

*(Field staff to describe the corrective actions required by the waterworks owner and when the violation is expected to be resolved.)*

For more information, please contact *(name of contact)* at *(phone number)* or *(mailing address)*.

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by *(system)*. State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Failure to Test for *E. coli* after any TC+ Repeat Sample - (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
(Community/Noncommunity Waterworks)

By direct (hand) delivery on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_

Provided to the following broadcast media (list: television/radio/website/social media) on

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ (method and date)

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address

**FM-C14-T1-Attachment 10. Waterborne Disease Outbreak.**

**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 1 NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

**NOTICE OF ALLEGED VIOLATION**

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Waterborne Disease Outbreak

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-531 G of the Virginia *Waterworks Regulations* (“Regulations”) due to the occurrence of a waterborne disease outbreak resulting from *(field staff to develop a brief “catchline” narrative; e.g., treatment failure, chemical spill or overfeed, sewage spill, or natural disaster, etc.)* that is potentially attributable to the waterworks. The Regulations characterize this alleged violation as a Tier 1 violation.

Section 12VAC5-590-531 G states, in part, “The owner shall report the following incidents within 24 hours to the [Virginia Department of Health]: 1. A waterborne disease outbreak that is potentially attributable to that waterworks. 2. Chlorine residual of below 0.2 mg/L in the water entering the distribution system. The owner also shall notify the department by the end of the next business day whether or not the residual was restored to at least 0.2 mg/L within four hours.”

(Field staff may want to insert a more detailed narrative to describe the sample results that are the basis for this NOAV. Narrative to include sample locations, results, dates and times where appropriate.)

## **Required Actions**

**Public Notice:** In accordance with Section 12VAC5-590-540 A 1 of the Regulations, you are required **within 24 hours** of learning of the violation to deliver a Public Notice (“Notice”) to the consumers in the area served by the waterworks. This Notice must be handled as follows:

- You must distribute the Notice no later than *time on date*. *(Note to ODW staff: If applicable, this date and time must be within 24 hours from the time the waterworks became aware of the violation. It will usually be 24 hours from the consultation date and time.)*
- The Notice must be distributed in a manner to reach all persons served by hand delivering the Notice to each connection, posting at conspicuous locations throughout the area served by the waterworks, and/or appropriate broadcast media such as television, radio, social media, or website.
- *On a case-by-case basis, field staff may add any other public notification requirement as needed, and provide such details in this transmittal.*

**Draft Notice:** Attached is a draft Tier 1 Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at *(phone number)* or email at *(email address)*.

Sincerely,

Name & Title  
Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 1 Public Notice
2. Certification Form

cc: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director.  
Administrator/Manager, name of County, County

## NOTICE TO CONSUMERS

### IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

#### DRINKING WATER WARNING

#### Waterborne Disease Outbreak Disease-Causing Organisms Have Entered The (system) Water Supply

#### BOIL YOUR WATER BEFORE USING

We are required to monitor the quality of your drinking water on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During *(monitoring period)*, results of bacteriological testing indicate the potential occurrence of a waterborne disease outbreak caused by microorganisms. Therefore, we cannot be sure of the quality of your drinking water during that time. These organisms are causing illness in people served by *(system)*. We learned of a waterborne disease outbreak from *(agency)* on *(give date)*. *(Field staff may want to provide additional details that led to this NOAV, such as what happened and provide specifics.)*

#### What should I do? What does this mean?

#### DO NOT DRINK THE WATER WITHOUT BOILING IT FIRST

- Bring all water to a boil, let it boil for one minute, and let it cool before using, or use bottled water. Boiled or bottled water should be used for drinking, making ice, brushing teeth, washing dishes, and food preparation until further notice. Boiling kills bacteria and other organisms in the water.
- *(Describe symptoms of the waterborne disease.)* If you experience one or more of these symptoms and they persist, contact your doctor.
- If you have a severely compromised immune system, have an infant, are pregnant, or are elderly, you may be at increased risk and should seek advice from your health care providers about this drinking water.

General guidelines on ways to lessen the risk of infection by microbes are available from the EPA Safe Drinking Water Hotline at 1-800-426-4791.

#### What is being done?

*(Field staff to describe the corrective actions required by the waterworks and when the outbreak might end.)* We will inform you when you no longer need to boil your water.

For more information, please contact *(name of contact)* at *(phone number)* or *(mailing address)*.

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes,*

*schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by (system). State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.



SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Waterborne Disease Outbreak - (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
**(Community Waterworks)**

By direct (hand) delivery on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_  
\_\_\_\_\_

Provided to the following broadcast media (list: television/radio/website/social media) on

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ (method and date)

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address

**FM-C14-T1-Attachment 11. Waterborne Emergency.**

**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 1 NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

**NOTICE OF ALLEGED VIOLATION**

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Waterborne Emergency

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-531 G 2 of the Virginia *Waterworks Regulations* (“Regulations”) due to the occurrence of a waterborne emergency resulting from *(field staff to develop a brief “catchline” narrative; e.g., treatment failure, chemical spill or overfeed, sewage spill, or natural disaster, etc.)* that is potentially attributable to the waterworks. The Regulations characterize this alleged violation as a Tier 1 violation.

Section 12VAC5-590-531 G states, in part, “The owner shall report the following incidents within 24 hours to the [Virginia Department of Health]:... 2. Chlorine residual of below 0.2 mg/L in the water entering the distribution system. The owner also shall notify the department by the end of the next business day whether or not the residual was restored to at least 0.2 mg/L within four hours.”

(Field staff may want to insert a more detailed narrative to describe the sample results that are the basis for this NOAV. Narrative to include sample locations, results, dates and times where appropriate.)

**Required Actions**

**Public Notice:** In accordance with Section 12VAC5-590-540 A 1 j of the Regulations, you are required **within 24 hours** of learning of the violation to deliver a Public Notice (“Notice”) to the consumers in the area served by the waterworks. This Notice must be handled as follows:

- You must distribute the Notice no later than *time on date*. (Note to ODW staff: If applicable, this date and time must be within 24 hours from the time the waterworks became aware of the violation. It will usually be 24 hours from the consultation date and time.)
- The Notice must be distributed in a manner to reach all persons served by hand delivering the Notice to each connection, posting at conspicuous locations throughout the area served by the waterworks, and/or appropriate broadcast media such as television, radio, social media, or website.
- On a case-by-case basis, field staff may add any other public notification requirement as needed, and provide such details in this transmittal.

**Draft Notice:** Attached is a draft Tier 1 Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** (Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at *(phone number)* or email at *(email address)*.

Sincerely,

Name & Title  
Field office name

ABC:xyz

Enclosures: *(If applicable, insert any other relevant information)*

1. Draft Tier 1 Public Notice
2. Certification Form

cc: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director.  
Administrator/Manager, name of County, County

**NOTICE TO CONSUMERS  
of the Name WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**DRINKING WATER WARNING  
Waterborne Emergency**

**BOIL YOUR WATER BEFORE USING**

We are required to monitor the quality of your drinking water on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During (*monitoring period*), results of bacteriological testing indicate a waterborne emergency caused by the presence of total coliforms and *E. coli* bacteria in multiple samples. Therefore, we cannot be sure of the quality of the drinking water during that time. These organisms are causing illness in people served by this waterworks. (*Field staff may want to provide additional details that led to this NOAV, such as what happened and provide specifics, such as with a spill, natural disaster, etc.*)

*\*Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially-harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the waterworks.\**

*\*E. coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Human pathogens in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a greater health risk for infants, young children, the elderly, and people with severely-compromised immune systems.\**

**What should I do? What does this mean?**

- **DO NOT DRINK THE WATER WITHOUT BOILING IT FIRST.** Bring all water to a boil, let it boil for one minute, and let it cool before using, or use bottled water. Boiled or bottled water should be used for drinking, making ice, brushing teeth, washing dishes, and food preparation until further notice. Boiling kills bacteria and other organisms in the water.
- If you experience one or more of these symptoms noted above and they persist, contact your doctor.
- If you have a severely compromised immune system, have an infant, are pregnant, or are elderly, you may be at increased risk and should seek advice from your health care providers about this drinking water.

General guidelines on ways to lessen the risk of infection by microbes are available from the EPA Safe Drinking Water Hotline at 1-800-426-4791.

**What is being done?**

*(Field staff to describe the corrective actions required by the waterworks and when the emergency might end.)* We will inform you when you no longer need to boil your water.

For more information, please contact (name of contact) at (phone number) or (mailing address).

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by (system). State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Waterborne Emergency - (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
**(Community Waterworks)**

By direct (hand) delivery on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_  
\_\_\_\_\_

Provided to the following broadcast media (list: television/radio/website/social media) on

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ (method and date)

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address

**FM-C14-T1-Attachment 12.** Failure to Consult with Department within 24 Hours after a Single Exceedance of Turbidity Limit.

**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 1 NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

## NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Failure to Consult with Department within 24 Hours after a Single Exceedance of Turbidity Limit

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-540 A 1 i of the Virginia *Waterworks Regulations* (“Regulations”) for failure to consult with the Virginia Department of Health within 24 hours after a single exceedance of the maximum allowable turbidity limit of 5 Nephelometric Turbidity Units (NTUs). The Regulations characterize this alleged violation as a Tier 1 violation.

Section 12VA5-590-540 A 1 i of the Regulations includes as a Tier 1 violation, “Failure to consult with the [Virginia Department of Health] within 24 hours after the owner learns of the violation of the treatment technique requirements for filtration... resulting from a single exceedance of the maximum allowable turbidity limit.”

(Field staff may want to insert a more detailed narrative to describe the sample results that are the basis for this NOAV. NOAV narrative to include sample locations, results, dates and times where appropriate.)

### **Required Actions**

**Public Notice:** In accordance with Section 12VAC5-590-540 of the Regulations, you are required **within 24 hours** of learning of the violation to deliver a Public Notice (“Notice”) to the consumers in the area served by the waterworks. This Notice must be handled as follows:



- You must distribute the Notice no later than time on date. (Note to ODW staff: If applicable, this date and time must be within 24 hours from the time the waterworks became aware of the violation. It will usually be 24 hours from the consultation date and time.)
- The Notice must be distributed in a manner to reach all persons served by hand delivering the Notice to each connection, posting at conspicuous locations throughout the area served by the waterworks, and/or appropriate broadcast media such as television, radio, social media, or website.
- On a case-by-case basis, field staff may add any other public notification requirement as needed, and provide such details in this transmittal.

**Draft Notice:** Attached is a draft Tier 1 Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than (date), you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** (Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at (phone number) or email at (email address).

Sincerely,

Name & Title  
Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 1 Public Notice
2. Certification Form

cc: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director.  
Administrator/Manager, name of County, County

## NOTICE TO CONSUMERS

### IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

#### **DRINKING WATER WARNING** **(System) Has High Turbidity Levels**

#### **BOIL YOUR WATER BEFORE USING**

We routinely monitor your water for turbidity (cloudiness). This tells us whether we are effectively filtering the water supply. A water sample collected on (give date) showed turbidity levels of [#] turbidity units (NTUs). This is above the standard of 5 NTUs. Also, we failed to consult with the department within 24 hours of learning of this turbidity exceedance. Because of these high levels of turbidity, there is an increased chance that the water may contain disease-causing organisms. (Field staff may want to further describe the violation, to include specifics such as observations, concentration levels, dates, times, etc. to summarize situational correctness).

*\*Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease causing organisms. These organisms include bacteria, viruses, and parasites, which can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.\**

#### **What should I do? What does this mean?**

#### **DO NOT DRINK THE WATER WITHOUT BOILING IT FIRST**

- Bring all water to a boil, let it boil for one minute, and let it cool before using, or use bottled water. Boiled or bottled water should be used for drinking, making ice, brushing teeth, washing dishes, and food preparation until further notice. Boiling kills bacteria and other organisms in the water.
- The symptoms above are not caused only by organisms in drinking water. If you experience any of these symptoms and they persist, you may want to seek medical advice. People at increased risk should seek advice from their health care providers about drinking this water.

General guidelines on ways to lessen the risk of infection by microbes are available from the EPA Safe Drinking Water Hotline at 1-800-426-4791.

#### **What is being done?**

(Field staff to describe the corrective actions required by the waterworks owner and when the system expects to return to compliance.) We will inform you when the turbidity returns to appropriate levels and when you no longer need to boil your water. We anticipate resolving the problem within (estimated time frame).

For more information, please contact (name of contact) at (phone number) or (mailing address).

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by (system). State Water System ID#: \_\_\_\_\_.  
Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Failure to Consult with Department within 24 Hours after a Single Exceedance of Turbidity Limit - (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
(Community Waterworks)

By direct (hand) delivery on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_  
\_\_\_\_\_

Provided to the following broadcast media (list: television/radio/website/social media) on

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ (method and date)

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address

**FM-C14-T1-Attachment 13.** Exceeding the Maximum Residual Disinfection Level (MRDL) for Chlorine Dioxide.

**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 1 NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

### NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

**Re:** Exceeding the Maximum Residual Disinfection Level (MRDL) for Chlorine Dioxide

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-384 C 2 a of the Virginia *Waterworks Regulations* (“Regulations”) for exceeding the maximum residual disinfection level (MRDL) of 0.8 mg/L for chlorine dioxide. The Regulations characterize this alleged violation as a Tier 1 violation.

Section 12VAC5-590-384 C 2 a states, in part, “If any daily sample collected at the entrance to the distribution system exceeds the MRDL..., and on the following day one or more of the three samples collected in the distribution system exceed the MRDL, then the owner is in violation of the MRDL and shall take immediate corrective action to lower the level of chlorine dioxide below the MRDL and shall notify the public pursuant to the procedures for Tier 1 conditions...in addition to reporting to the [Virginia Department of Health]...”

(Field staff may want to insert a narrative to further describe this violation situation in this NOAV. Narrative to include observations, sampling results, dates, times, etc. where appropriate.)

#### **Required Actions**

**Public Notice:** In accordance with Section 12VAC5-590-540 of the Regulations, you are required **within 24 hours** of learning of the violation to deliver a Public Notice (“Notice”) to the consumers in the area served by the waterworks. This Notice must be handled as follows:

- You must distribute the Notice no later than time on date. (Note to ODW staff: If applicable, this

date and time must be within 24 hours from the time the waterworks became aware of the violation. It will usually be 24 hours from any consultation date and time.)

- The Notice must be distributed in a manner to reach all persons served by hand delivering the Notice to each connection, posting at conspicuous locations throughout the area served by the waterworks, and/or appropriate broadcast media such as television, radio, social media, or website.
- (On a case-by-case basis, field staff may add any other public notification requirement as needed and provide such details in this transmittal. Otherwise, this item may be deleted.)

**Draft Notice:** Attached is a draft Tier 1 Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than date, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** (Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at (phone number) or email at (email address).

Sincerely,

Name & Title  
Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 1 Public Notice
2. Certification Form

ec: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director.  
Administrator/Manager, name of County, County



**NOTICE TO CONSUMERS  
of the Name WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Exceeding the Maximum Residual Disinfection Level (MRDL) for Chlorine Dioxide**

**PREGNANT WOMEN AND YOUNG CHILDREN SHOULD NOT DRINK THE WATER**

On *(give date)*, we received notice that the sample collected on *(give date)* showed a chlorine dioxide level of *(#)* mg/L. This is above the standard, or maximum residual disinfectant level (MRDL) of 0.8 mg/L. On the following day *one (or more)* of the three samples taken in the distribution system exceeded the MRDL. Chlorine dioxide is used for disinfection, but too much of it over a short period of time may harm the development of children, infants, and fetuses.

Chlorine dioxide is used in small amounts every day to kill bacteria and other organisms that may be in your drinking water. *(Field staff may want to provide additional details that led to this NOAV, such as "a problem occurred with our chlorine dioxide generator, and too much chlorine dioxide was released.")*

**What should I do? What does this mean?**

**DO NOT USE THIS WATER IF YOU ARE PREGNANT OR GIVE IT TO YOUNG CHILDREN.**

➤ Bottled water should be used until further notice.

*\*Some infants and young children who drink water containing chlorine dioxide in excess of the MRDL could experience nervous system effects. Similar effects may occur in fetuses of pregnant women who drink water containing chlorine dioxide in excess of the MRDL. Some people may experience anemia. The chlorine dioxide violations reported today are the result of exceedances at the treatment facility only, not within the distribution system that delivers water to consumers. Continued compliance with chlorine dioxide levels within the distribution system minimizes the potential risk of these violations to consumers.\** There are no obvious symptoms, but chlorine dioxide can affect development of the nervous system.

➤ Water, juice, and formula for young children and for pregnant women should not be prepared with the tap water.

➤ Adults who are not pregnant and older children can drink the tap water because their nervous systems are already developed. However, if you have specific health concerns, you may wish to consult your doctor or healthcare provider.

**What is being done?**

*(Field staff to describe the corrective actions required by the waterworks owner and when the violation is expected to be resolved.)*

For more information, please contact *(name of contact)* at *(phone number)* or *(mailing address)*.

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by (system). State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

**VIOLATION:** Exceeding the Maximum Residual Disinfection Level (MRDL) for Chlorine Dioxide  
- (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
*(Community Waterworks)*

By direct (hand) delivery on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_  
\_\_\_\_\_

Provided to the following broadcast media *(list: television/radio/website/social media)* on

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ *(method and date)*

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address

**FM-C14-T1-Attachment 14.** Detection of *E. coli*, Enterococci, Coliphage in Groundwater Source. **INSTRUCTIONS:** Field staff to use this template to finalize the Tier 1 PN as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

### TIER 1 PUBLIC NOTICE REQUIRED

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Detection of *E. coli* in Groundwater Source

Dear Waterworks Owner:

This notice is to advise that you must distribute a Tier 1 public notice as required by Section 12VAC5-590-379 B 1 c (1) of the Virginia *Waterworks Regulations* (“Regulations”) due to the presence of *E. coli* in a ground water source sample.

Section 12VAC5-379 B 1 c (1) states, in part, “If an *E. coli*-positive triggered source water sample...is not invalidated..., then the groundwater system owner shall provide public notification and collect five additional source water samples from the same source within 24 hours of being notified of the *E. coli*-positive sample.”

(Field staff may want to insert a more detailed narrative to describe the sample results that are the basis for this PN. Narrative to include sampling locations, results, dates and times where appropriate.)

### **Required Actions**

**Public Notice:** In accordance with Section 12VAC5-590-540 of the Regulations, you are required **within 24 hours** of learning of the violation to deliver a Public Notice (“Notice”) to the consumers in the area served by the waterworks. This Notice must be handled as follows:

- You must distribute the Notice no later than time on date. (Note to ODW staff: If applicable, this date and time must be within 24 hours from the time the waterworks became aware of the violation. It will usually be 24 hours from the consultation date and time.)

- The Notice must be distributed in a manner to reach all persons served by hand delivering the Notice to each connection, posting at conspicuous locations throughout the area served by the waterworks, and/or appropriate broadcast media such as television, radio, social media, or website.
- On a case-by-case basis, field staff may add any other public notification requirement as needed, and provide such details in this transmittal.

**Draft Notice:** Attached is a draft Tier 1 Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *((Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.))*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at *(phone number)* or email at *(email address)*.

Sincerely,

*Name & Title*  
*Field office name*

*ABC:xyz*

Enclosures: *(If applicable, insert any other relevant information)*

1. Draft Tier 1 Public Notice
2. Certification Form

*cc: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director.*

Administrator/Manager, name of County, County

## NOTICE TO CONSUMERS

### IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

#### DRINKING WATER WARNING

**(System)'s (Source) Tested Positive for Fecal Indicator**

#### **BOIL YOUR WATER BEFORE USING**

Our water system recently detected a fecal indicator (give contaminant e.g., E. coli, enterococci, coliphage) (see definition below) in (source). As our customers, you have a right to know what happened and what we are doing to correct this situation. On (give date), we collected a sample from (source). The sample tested positive for (give contaminant, e.g., E. coli, enterococci, coliphage).

**What should I do? What does this mean?**

#### **DO NOT DRINK THE WATER WITHOUT BOILING IT FIRST**

- Bring all water to a boil, let it boil for one minute, and let it cool before using, or use bottled water. Boiled or bottled water should be used for drinking, making ice, brushing teeth, washing dishes, and food preparation until further notice. Boiling kills bacteria and other organisms in the water.

*\*Fecal indicators are microbes whose presence indicates that the water may be contaminated with human or animal wastes. Microbes in these wastes can cause short-term health effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a special health risk for infants, young children, some of the elderly, and people with severely compromised immune systems.\**

- The symptoms above are not caused only by organisms in drinking water. If you experience any of these symptoms and they persist, you may want to seek medical advice. People at increased risk should seek advice from their health care providers about drinking this water.

General guidelines on ways to lessen the risk of infection by microbes are available from the EPA Safe Drinking Water Hotline at 1-800-426-4791.

**What is being done?**

*(Field staff to describe the corrective actions required by the waterworks owner and when the violation is expected to be resolved.)* We will inform you when tests show no (give contaminant, e.g., E. coli, enterococci, coliphage) and you no longer need to boil your water. We anticipate resolving the problem within (estimated time frame).

For more information, please contact (name of contact) at (phone number) or (mailing address).

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by (system). State Water System ID#: \_\_\_\_\_.  
Date distributed: \_\_\_\_\_.



SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Detection of *E. coli*, Enterococci, Coliphage in Groundwater Source - (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
(Community Waterworks)

By direct (hand) delivery on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_

Provided to the following broadcast media (list: television/radio/website/social media) on

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ (method and date)

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address

**FM-C14-T1-Attachment 15.** Elevation of Public Notification from Tier 2 to Tier 1.

**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 1 NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

## NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Elevation of Public Notification from Tier 2 to Tier 1

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-540 A 4 of the Virginia *Waterworks Regulations* (“Regulations”) whereupon it has been determined that the public notification requirements of a Tier 2 violation or situation are inadequate to protect the public health. This determination was based on significant potential to have serious adverse effects on human health from short-term exposure. On *(date)*, the Virginia Department of Health determined that it is necessary to elevate the Tier 2 public notification requirements to Tier 1 public notification in order to protect the public health.

Section 12VAC5-590-540 A 4 states, in part, “The [Virginia Department of Health] may require...a higher tier of public notice for specific violations and situations.... The content and extent of distribution of these public notices shall be determined by the [Virginia Department of Health].”

[Field staff to insert a more detailed narrative to authenticate the situational correctness of this NOAV based on the selection(s) above, taking into account also the urgency of the situation. Narrative to includes dates and times where appropriate.]

### **Required Actions**

**Public Notice:** In accordance with Section 12VAC5-590-540 of the Regulations, you are required **within 24 hours** of learning of the violation to deliver a Public Notice (“Notice”) to the consumers in the area served by the waterworks. This Notice must be handled as follows:

- You must distribute the Notice no later than time on date. (Note to ODW staff: If applicable, this date and time must be within 24 hours from the time the waterworks became aware of the violation. It will usually be 24 hours from the consultation date and time.)
- The Notice must be distributed in a manner to reach all persons served by hand delivering the Notice to each connection, posting at conspicuous locations throughout the area served by the waterworks, and/or appropriate broadcast media such as television, radio, social media, or website.
- On a case-by-case basis, field staff may add any other public notification requirement as needed and provide such details in this transmittal.

**Draft Notice:** Attached is a draft Tier 1 Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than (date), you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** ((Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for eah corrective action.))

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at (phone number) or email at (email address).

Sincerely,

Name & Title  
Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 1 Public Notice
2. Certification Form

cc: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director.  
Administrator/Manager, name of County, County

**NOTICE TO CONSUMERS  
of the Name WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Elevation of Public Notification from Tier 2 to Tier 1**

We are required to monitor your drinking water on a regular basis. During the monitoring period *(date to date)*, our waterworks experienced numerous operational problems to the extent that there is significant potential to have serious adverse effects on human health from the short-term exposure resulting from these problems. As a precautionary measure, as our customers, you have a right to know what happened and what we did (or are doing) to correct the situation. *(Field staff may want to provide additional details that led to this determination and NOAV. Use this NOAV on a case-by-case basis along with the Field Director's concurrence.)*

**What should I do? What does this mean?**

*(Field staff to provide the details that resulted in this determination and NOAV, and specifically on the precautionary measures (not limited to a Boil Water Advisory, Do Not Drink, or Do Not Use notices).*

**What is being done?**

*(Field staff to describe the corrective actions required by the waterworks owner and when the system expects to return to compliance.)*

For more information, please contact *(name of contact)* at *(phone number)* or *(mailing address)*.

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by *(system)*. State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Elevation of Public Notification from Tier 2 to Tier 1-- (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
*(Community Waterworks)*

By direct (hand) delivery on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_

Provided to the following broadcast media *(list: television/radio/website/social media)* on

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ *(method and date)*

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address

**FM-C14-T2-Attachment 1.** Exceeding the Primary Maximum Contaminant Level (PMCL) for Any Chemical Contaminant.

**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 2 NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

### NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Exceeding the Primary Maximum Contaminant Level (PMCL) for Specify Chemical Contaminant

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-340 C 1 of the Virginia *Waterworks Regulations* (“Regulations”) for exceeding the Primary Maximum Contaminant Level (PMCL) for (specify contaminant) during the (quarter, year, or period) at the [if applicable, name the entry point(s)]. The PMCL for the (specify chemical contaminant) is (#) mg/L. The Regulations characterize this alleged violation as a Tier 2 violation.

Section 12VAC5-590-340 C states, in part, “Compliance is determined: 1. Based on sample results or calculated averages, where appropriate, rounded to the same number of significant figures as the PMCL...of the contaminant in question...”

(Field staff may want to insert a narrative to further describe this violation situation in this NOAV. Narrative to include observations, sampling results, dates, times, etc. where appropriate. Choose from some useful tips below.)

(Choose one of the following)

The (running) annual average concentration for (specify chemical contaminant) was (#) mg/L [for scheduled and confirmation samples (DCLS sample ID numbers (#) collected on (date), respectively.] OR [The results of these analyses are listed in the following table:]`

*[Note to staff: Use the following table for quarterly samples. Please note that an annual average sample analysis result would usually be from a single sample and its confirmation sample; while a running annual average would usually be from quarterly samples.  
All Analytical Results in mg/L.]*

Quarter	Scheduled Sample		Confirmation Sample		Average (A & B) Results
	Date - Sample ID#	Results (A)	Date - Sample ID#	Results (B)	
1					
2					
3					
4					
<b>(Running) Annual Average:</b>					

**Required Actions**

In accordance with Section 12VAC5-590-540 of the Regulations, a Tier 2 violation requires you issue a Tier 2 Public Notice (“Notice”) to the consumers in the area served in accordance to the public notification requirements described below:

**Public Notice:** The Tier 2 Notice requires you to notify consumers in the area served **within 30 days** of learning of the violation. This Notice must be handled as follows:

- You must provide a Notice to consumers no later than *date*; (i.e., 30 days from date of letter or 30 days from when owner was apprised of the violation, whichever comes first.)
- Your Notice to consumers must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example) you must also use other delivery methods to provide notice to these consumers as well. Examples of other methods include (but are not limited to) notice publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the system.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved).*



- You must repeat distribution of the Notice every three months, for as long as the violation persists. (This requirement may be deleted if the violation has already been resolved).

**Draft Notice:** Attached is a draft Tier 2 Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *date*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** (Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at (phone number) or email at (email address).

Sincerely,

Name & Title  
Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 2 Public Notice
2. Certification Form

ec: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director. Administrator/Manager, name of County, County

**NOTICE TO CONSUMERS  
of the *(Name)* WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Exceeding the Primary Maximum Contaminant Level (PMCL) for *Specify Chemical Contaminant***

Our water system recently violated a drinking water standard. Although this is not an emergency, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation. We routinely monitor for the presence of drinking water contaminants. On *[give date]*, we have been advised by State Health Officials that the water supplied by this waterworks during *(quarter, year, or period)* showed that our system exceeds the standard, or primary maximum contaminant level (PMCL), for *[specify chemical contaminant]*. The standard for *[specify chemical contaminant]* is *[#]* mg/L. The average level of *[specify chemical contaminant]* over the last year has been *[provide level]*. *OR [Specify chemical contaminant] was found at [provide level]. Field staff may want to further describe the violation, to include specifics such as population at risk, use of alternate water supplies, confirmation and quarterly samples, sample IDs, concentration levels, dates, times, etc. to summarize situational correctness.*

**What should I do?**

- There is nothing you need to do. You do not need to boil your water or take other corrective actions. However, if you have specific health concerns, consult your doctor.
- If you have a severely compromised immune system, have an infant, are pregnant, or are elderly, you may be at increased risk and should seek advice from your health care providers about drinking this water.

**What does this mean?**

This is not an emergency. If it had been, you would have been notified within 24 hours.

*(Depending on the specific chemical contaminant in question, staff will need to add the mandatory health effects language from Section 12VAC5-590-546).*

**What is being done?**

*(Field staff to describe the corrective actions required by the waterworks owner and when the violation is expected to be resolved.)*

For more information, please contact *(name of contact)* at *(phone number)* or *(mailing address)*.

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes,*

*schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by (system). State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

**VIOLATION:** Exceeding the Primary Maximum Contaminant Level (PMCL) for Specify Chemical Contaminant - (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
(Community/Noncommunity Waterworks)

By direct (hand) delivery on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_  
\_\_\_\_\_

Provided to the following broadcast media (list: television/radio/website/social media) on

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ (method and date)

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address

**FM-C14-T2-Attachment 2.** Failure to Determine and Report Bin Classification under LT2 Rule.  
**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 2 NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

## NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Failure to Determine and Report Bin Classification under LT2 Rule

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-401 D 1 a and 12VAC5-590-401 D 1 d (1) of the Virginia *Waterworks Regulations* (“Regulations”) for failing to determine and report bin classification after the initial source water monitoring for *Cryptosporidium* under the LT2 Rule. The Regulations characterize this alleged violation as a Tier 2 violation.

Section 12VAC5-590-401 D 1 a states, in part, “Following completion of the initial round of source water monitoring . . . , the owner shall calculate an initial *Cryptosporidium* bin concentration for each water treatment plant for which monitoring was required. Calculation of the bin concentration shall use the *Cryptosporidium* results reported under subdivision B 1 of this section. . . .”

Section 12VAC5-590-401 D 1 d (1) states, in part, “The owner shall report the initial bin classification. . . to the [Virginia Department of Health] for approval no later than six months after the waterworks is required to complete the initial source water monitoring. . . .”

(Field staff may want to insert a narrative to further describe this violation situation in this NOAV. Narrative to include observations, sampling results, dates, times, etc. where appropriate.)

## **Required Actions**

In accordance with Section 12VAC5-590-540 of the Regulations, a Tier 2 violation requires you issue a Tier 2 Public Notice (“Notice”) to the consumers in the area served in accordance to the public notification requirements described below:

**Public Notice:** The Tier 2 Notice requires you to notify consumers in the area served **within 30 days** of learning of the violation. This Notice must be handled as follows:

- You must provide a Notice to consumers no later than *date*; (i.e., 30 days from date of letter or 30 days from when owner was apprised of the violation, whichever comes first.)
- Your Notice to consumers must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example) you must also use other delivery methods to provide notice to these consumers as well. Examples of other methods include (but are not limited to) notice publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the system.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved).*
- You must repeat distribution of the Notice every three months, for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved).*

**Draft Notice:** Attached is a draft Tier 2 Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *date*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil

charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at (phone number) or email at (email address).

Sincerely,

Name & Title  
Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 2 Public Notice
2. Certification Form

cc: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director. Administrator/Manager, name of County, County

**NOTICE TO CONSUMERS  
of the *(Name)* WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Failure to Determine and Report Bin Classification under LT2 Rule**

Our water system recently violated a drinking water requirement. Although this is not an emergency, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation.

*\*We are required to monitor the source of your drinking water for Cryptosporidium in order to determine by [give date] whether water treatment at the [provide treatment plant name] is sufficient to adequately remove Cryptosporidium from your drinking water. We have not made this determination by the required date. Our failure to do this may jeopardize our ability to have the required treatment modifications, if any, completed by the required deadline of [give date].\**

Cryptosporidium is a disease-causing microorganism that may be present in our raw water source. (Field staff may want to further describe the violation, to include additional specifics, such as other observations to summarize situational correctness).

**What should I do?**

- There is nothing you need to do. You do not need to boil your water or take other corrective actions. However, if you have specific health concerns, consult your doctor.
- If you have a severely compromised immune system, have an infant, are pregnant, or are elderly, you may be at increased risk and should seek advice from your health care providers about drinking this water. General guidelines on ways to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from EPA's Safe Drinking Water Hotline at 1-800-426-4791.

**What does this mean?**

This is not an emergency. If it had been, you would have been notified within 24 hours.

*\*Inadequately treated water may contain disease-causing organisms. These organisms include bacteria, viruses, and parasites which can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.\**

These symptoms, however, are not caused only by organisms in drinking water, but also by other factors. If you experience any of these symptoms and they persist, you may want to seek medical advice.



**What is being done?**

(Field staff to describe the corrective actions required by the waterworks owner and when the violation is expected to be resolved.)

For more information, please contact (name of contact) at (phone number) or (mailing address).

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by (system). State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Failure to Determine and Report Bin Classification under LT2 Rule - (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
(Community Waterworks)

By direct (hand) delivery on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_

Provided to the following broadcast media (list: television/radio/website/social media) on

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ (method and date)

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address

**FM-C14-T2-Attachment 3.** Failure to Provide and/or Install Additional Level of Treatment under LT2 Rule.

**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 2 NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

### NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Failure to Provide and/or Install Additional Level of Treatment under LT2 Rule

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Sections 12VAC5-590-401 D 2 a and 12VAC5-590-401 D 2 b (1) of the Virginia *Waterworks Regulations* (“Regulations”) for failure to provide and install additional treatment as determined to be necessary based on a bin classification following source water monitoring for Cryptosporidium under the LT2 Rule. The Regulations characterize this alleged violation as a Tier 2 treatment technique violation.

Section 12VAC5-590-401 D 2 a states, in part, “A waterworks shall provide the level of additional treatment for Cryptosporidium...based on the bin classification as determined under...subdivision D 1 of this section and according to the schedule in subdivision D 3 b of this section.”

Section 12VAC5-590-401 D 2 b (1) states, in part, “The owner shall use one or more of the treatment and management options listed in...the microbial toolbox, to comply with the additional Cryptosporidium treatment required in...this section.”

(Field staff may want to insert a narrative to further describe this violation situation in this NOAV. Narrative to include observations, sampling results, dates, times, etc. where appropriate.)

#### **Required Actions**

In accordance with Section 12VAC5-590-540 of the Regulations, a Tier 2 violation requires you issue a Tier 2 Public Notice (“Notice”) to the consumers in the area served in accordance to the public notification requirements described below:

**Public Notice:** The Tier 2 Notice requires you to notify consumers in the area served **within 30 days** of learning of the violation. This Notice must be handled as follows:

- You must provide a Notice to consumers no later than *date*; (i.e., 30 days from date of letter or 30 days from when owner was apprised of the violation, whichever comes first.)
- Your Notice to consumers must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example) you must also use other delivery methods to provide notice to these consumers as well. Examples of other methods include (but are not limited to) notice publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the system.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved).*
- You must repeat distribution of the Notice every three months, for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved).*

**Draft Notice:** Attached is a draft Tier 2 Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *date*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at *(phone number)* or email at *(email address)*.

Sincerely,

Name & Title  
Field office name

ABC.xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 2 Public Notice
2. Certification Form

cc: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director.  
Administrator/Manager, name of County, County

**NOTICE TO CONSUMERS  
of the *(Name)* WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Failure to Provide and/or Install Additional Level of Treatment under LT2 Rule**

Our water system recently violated a drinking water requirement. Although this is not an emergency, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation.

Cryptosporidium is a disease-causing microorganism that has been found in our raw water source. Our water system was required to provide an additional level of treatment to address Cryptosporidium by [provide date]. We failed to do this by the required date. [Field staff may want to further describe the violation, to include additional specifics, such as other observations to summarize situational correctness].

**What should I do?**

- There is nothing you need to do. You do not need to boil your water or take other corrective actions. However, if you have specific health concerns, consult your doctor.
- If you have a severely compromised immune system, have an infant, are pregnant, or are elderly, you may be at increased risk and should seek advice from your health care providers about drinking this water. General guidelines on ways to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from EPA's Safe Drinking Water Hotline at 1-800-426-4791.

**What does this mean?**

This is not an emergency. If it had been, you would have been notified within 24 hours.

*\*Inadequately treated water may contain disease-causing organisms. These organisms include bacteria, viruses, and parasites which can cause symptoms such as nausea, cramps, diarrhea, and associated headaches . \**

These symptoms, however, are not caused only by organisms in drinking water, but also by other factors. If you experience any of these symptoms and they persist, you may want to seek medical advice.

**What is being done?**

(Field staff to describe the corrective actions required by the waterworks owner and when the violation is expected to be resolved.)

For more information, please contact (name of contact) at (phone number) or (mailing address).

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by (system). State Water System ID#: \_\_\_\_\_.  
Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

**VIOLATION:** Failure to Provide and/or Install Additional Level of Treatment under LT2 Rule - (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
*(Community Waterworks)*

By direct (hand) delivery on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_

Provided to the following broadcast media (list: television/radio/website/social media) on

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ (method and date)

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address



**FM-C14-T2-Attachment 4.** Failure to Achieve Required Treatment Credit under LT2 Rule.  
**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 2 NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

## NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Failure to Achieve Required Treatment Credit under LT2 Rule

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-401 D 2 c of the Virginia *Waterworks Regulations* (“Regulations”) for failure to achieve the required treatment credit under the LT2 Rule. The Regulations characterize this alleged violation as a Tier 2 treatment technique violation.

Section 12VAC5-590-401 D 2 c states, in part, “Failure by a waterworks in any month to achieve treatment credit by meeting criteria...for microbial toolbox options that is at least equal to the level of treatment required...is a violation of the treatment technique requirement.”

(Field staff may want to insert a narrative to further describe this violation situation in this NOAV. Narrative to include observations, sampling results, dates, times, etc. where appropriate.)

### **Required Actions**

In accordance with Section 12VAC5-590-540 of the Regulations, a Tier 2 violation requires you issue a Tier 2 Public Notice (“Notice”) to the consumers in the area served in accordance to the public notification requirements described below:

**Public Notice:** The Tier 2 Notice requires you to notify consumers in the area served **within 30 days** of learning of the violation. This Notice must be handled as follows:

- You must provide a Notice to consumers no later than date; (i.e., 30 days from date of letter or 30 days from when owner was apprised of the violation, whichever comes first.)

- Your Notice to consumers must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example) you must also use other delivery methods to provide notice to these consumers as well. Examples of other methods include (but are not limited to) notice publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the system.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. (This requirement may be deleted if the violation has already been resolved).
- You must repeat distribution of the Notice every three months, for as long as the violation persists. (This requirement may be deleted if the violation has already been resolved).

**Draft Notice:** Attached is a draft Tier 2 Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *date*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any "calling out" for a mutually agreeable schedule and/or completion dates for each corrective action.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at *(phone number)* or email at *(email address)*.

Sincerely,

*Name & Title*

Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 2 Public Notice
2. Certification Form

cc: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director. Administrator/Manager, name of County, County

**NOTICE TO CONSUMERS  
of the (Name) WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Failure to Achieve Required Treatment Credit under LT2 Rule**

Our water system recently violated a drinking water requirement. Although this is not an emergency, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation.

Cryptosporidium is a disease-causing microorganism that has been found in our raw water source. Our water system was required to maintain a specified level of additional treatment to address Cryptosporidium. During [provide date range], our system fell below this level. [Field staff may want to further describe the violation, to include additional specifics, such as other observations to summarize situational correctness].

**What should I do?**

- There is nothing you need to do. You do not need to boil your water or take other corrective actions. However, if you have specific health concerns, consult your doctor.
- If you have a severely compromised immune system, have an infant, are pregnant, or are elderly, you may be at increased risk and should seek advice from your health care providers about drinking this water. General guidelines on ways to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from EPA's Safe Drinking Water Hotline at 1-800-426-4791.

**What does this mean?**

This is not an emergency. If it had been, you would have been notified within 24 hours.

*\*Inadequately treated water may contain disease-causing organisms. These organisms include bacteria, viruses, and parasites which can cause symptoms such as nausea, cramps, diarrhea, and associated headaches . \**

These symptoms, however, are not caused only by organisms in drinking water, but also by other factors. If you experience any of these symptoms and they persist, you may want to seek medical advice.

**What is being done?**

(Field staff to describe the corrective actions required by the waterworks owner and when the violation is expected to be resolved.)

For more information, please contact (name of contact) at (phone number) or (mailing address).

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by (system). State Water System ID#: \_\_\_\_\_.  
Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

**VIOLATION:** Failure to Achieve Required Treatment Credit under LT2 Rule - (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
(Community Waterworks)

By direct (hand) delivery on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_

Provided to the following broadcast media (list: television/radio/website/social media) on

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ (method and date)

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address

**FM-C14-T2-Attachment 4.** Failure to Provide Filtration Treatment under SWTR.

**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 2 TT NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

**NOTICE OF ALLEGED VIOLATION**

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Failure to Provide Filtration Treatment Required under SWTR

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-395 A 1 of the Virginia *Waterworks Regulations* (“Regulations”) for failure to provide filtration treatment as required under the Surface Water Treatment Rule (SWTR). The Regulations characterize this alleged violation as a Tier 2 treatment technique violation.

Section 12VAC5-590-395 A 1 states, in part, “The filtration and disinfection provisions...are required treatment techniques for a waterworks supplied by a surface water source, a GUDI source, or both.”

(Field staff may want to insert a narrative to further describe this violation situation that resulted in this NOAV. Narrative to include observations, sampling results, dates, times, etc. where appropriate.)

**Required Actions**

In accordance with Section 12VAC5-590-540 of the Regulations, a Tier 2 violation requires you issue a Tier 2 Public Notice (“Notice”) to the consumers in the area served in accordance to the public notification requirements described below:

**Public Notice:** The Tier 2 Notice requires you to notify consumers in the area served **within 30 days** of learning of the violation. This Notice must be handled as follows:

- You must provide a Notice to consumers no later than *(date)*; (i.e., 30 days from date of letter or 30 days from when owner was apprised of the violation, whichever comes first.)
- Your Notice to consumers must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example) you must also use other delivery methods to provide notice to these consumers as well. Examples of other methods include (but are not limited to) notice publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the system.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved).*
- *(You must repeat distribution of the Notice every three months, for as long as the violation persists. (This requirement may be deleted if the violation has already been resolved).*

**Draft Notice:** Attached is a draft Tier 2 Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27 and 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at *(phone number)* or email at *(email address)*.

Sincerely,



Name & Title  
Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 2 Public Notice
2. Certification Form

cc: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director.  
Administrator/Manager, name of County, County

**NOTICE TO CONSUMERS  
of the (Name) WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Failure to Provide Filtration Treatment Required under SWTR**

Our water system recently violated a drinking water requirement. Although this situation does not require that you take immediate action, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation. On [give date], the Virginia Department of Health (“department”) ordered us to filter the water in addition to disinfecting under the Surface Water Treatment Rule (SWTR). We are required to install this filtration because we do not have an adequate watershed control program in place. However, we have not yet installed a filtration system. (Field staff may want to briefly describe the violation, to include specifics such as observations, concentration levels, dates, times, etc. to summarize situational correctness).

**What should I do?**

- You do not need to boil your water. However, if you have specific health concerns, consult your doctor. A home filter will not necessarily solve the problem, because not all home filters protect against parasites. Call NSF International at 1(800) NSF-8010 or the Water Quality Association at 1(800) 749-0234 for information on appropriate filters.
- If you have a severely compromised immune system, have an infant, are pregnant, or are elderly, you may be at increased risk and should seek advice from your health care providers about drinking this water. General guidelines on ways to lessen the risk of infection by microbes are available from EPA’s Safe Drinking Water Hotline at 1-800-426-4791.

**What does this mean?**

This is not an emergency. If it had been, you would have been notified within 24 hours. We do not know of any cases of contamination. However, until improvements are made, there is an increased chance that disease-causing organisms could contaminate the water supply.

*\*Inadequately treated water may contain disease-causing organisms. These organisms include bacteria, viruses, and parasites which can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.\**

These symptoms, however, are not caused only by organisms in drinking water. If you experience any of these symptoms and they persist, you may want to seek medical advice.

**What is being done?**

*(Field staff to describe the corrective actions required by the waterworks owner and when the violation is expected to be resolved. Until filtration is installed, you will receive a notice similar to this every three months).*

For more information, please contact *(name of contact)* at *(phone number)* or *(mailing address)*.

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by *(system)*. State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Failure to Provide Filtration Treatment Required under SWTR - (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
*(Community Waterworks)*

By direct (hand) delivery on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_

Provided to the following broadcast media *(list: television/radio/website/social media)* on

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ *(method and date)*

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
*Name* Field Office, Office of Drinking Water  
*Address*

**FM-C14-T2-Attachment 6.** Exceeding the Turbidity Treatment Limits under SWTR.  
**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 2 NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

### NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Exceeding the Turbidity Treatment Limits under SWTR

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-395 A 2 b (1) (b) of the Virginia *Waterworks Regulations* (“Regulations”) for exceeding the turbidity treatment limit of one Nephelometric Turbidity Unit (NTU) at the waterworks during the monitoring period of (date) as required under the Surface Water Treatment Rule (SWTR). The Regulations characterize this alleged violation as a Tier 2 violation.

Section 12VAC5-590-395 A 2 b (1) (b) states, in part, “The turbidity level of representative samples of a waterworks' filtered water shall at no time exceed one NTU, measured as specified....”

(Field staff may want to insert a narrative to further describe this violation situation in this NOAV. Narrative to include observations, sampling results, dates, times, etc. where appropriate.)

#### **Required Actions**

In accordance with Section 12VAC5-590-540 of the Regulations, a Tier 2 violation requires you issue a Tier 2 Public Notice (“Notice”) to the consumers in the area served in accordance to the public notification requirements described below:

**Public Notice:** The Tier 2 Notice requires you to notify consumers in the area served **within 30 days** of learning of the violation. This Notice must be handled as follows:

- You must provide a Notice to consumers no later than date; (i.e., 30 days from date of letter or 30 days from when owner was apprised of the violation, whichever comes first.)

- Your Notice to consumers must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example) you must also use other delivery methods to provide notice to these consumers as well. Examples of other methods include (but are not limited to) notice publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the system.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. (This requirement may be deleted if the violation has already been resolved).
- You must repeat distribution of the Notice every three months, for as long as the violation persists. (This requirement may be deleted if the violation has already been resolved).

**Draft Notice:** Attached is a draft Tier 2 Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than date, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** (Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at (phone number) or email at (email address).

Sincerely,

Name & Title  
Field office name

ABC.xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 2 Public Notice
2. Certification Form

cc: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director.  
Administrator/Manager, name of County, County

**NOTICE TO CONSUMERS  
of the Name WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Exceeding the Turbidity Treatment Limits under SWTR**

Our water system recently violated a drinking water requirement. Although this was not an emergency, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation. We routinely monitor your water for turbidity (cloudiness). This tells us whether we are effectively filtering the water supply.

During the monitoring period of *(date)*, *our* waterworks exceeded the turbidity treatment limit of 1 Nephelometric Turbidity Unit (NTU). *(Field staff may want to further describe the violation, to include additional specifics, such as other observations to summarize situational correctness, e.g., choose from single and monthly turbidity exceedance options).*

*Option 1 (Single turbidity exceedance) “Normal turbidity levels at our plant are [#] NTU Nephelometric turbidity units. A water sample collected on [date] showed levels of [#] turbidity units. This was above the standard of [0.5 standard] units. Because of these high levels of turbidity, there is an increased chance that the water may contain disease-causing organisms”*

*Option 2 (Monthly turbidity exceedance) “Water samples for [month] showed that [percentage] percent of turbidity measurements were over [standard] turbidity units – the standard is that no more than 5 percent of samples may exceed [standard] turbidity units per month. The turbidity levels are relatively low. However, their persistence is a concern. Normal turbidity levels at our plant are [number] units.”*

These symptoms are not caused only by organisms in drinking water. If you experience any of these symptoms and they persist, you may want to seek medical advice.

**What should I do?**

- There is nothing you need to do. You do not need to boil your water or take other actions. We do not know of any contamination, and none of our testing has shown disease-causing organisms in the drinking water.
- If you have a severely compromised immune system, have an infant, are pregnant, or are elderly, you may be at increased risk and should seek advice from your health care providers about drinking this water. General guidelines on ways to lessen the risk of infection by microbes are available from EPA’s Safe Drinking Water Hotline at 1-800 426-4791.

**What does this mean?**

This is not an emergency. If it had been, you would have been notified within 24 hours.

*\*Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a*



*medium for microbial growth. Turbidity may indicate the presence of disease causing organisms. These organisms include bacteria, viruses, and parasites which can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.\**

These symptoms are not caused only by organisms in drinking water. If you experience any of these symptoms and they persist, you may want to seek medical advice.

**What is being done?**

*[Describe the corrective actions and when the system returned or expects to return to compliance.]*

For more information, please contact *[name of contact]* at *[phone number]* or *[mailing address]*.

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by *(system)*. State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Exceeding the Turbidity Treatment Limits under SWTR - (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
*(Community Waterworks)*

By direct (hand) delivery on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_

Provided to the following broadcast media *(list: television/radio/website/social media)* on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ *(method and date)*

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**

Name Field Office, Office of Drinking Water

Address

**FM-C14-T2-Attachment 7.** Failure to Meet Disinfection Treatment Requirements under SWTR. **INSTRUCTIONS:** Field staff to use this template to finalize the Tier 2 NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

### NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Failure to Meet Disinfection Treatment Requirements under the SWTR

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-395 A 2 a (1) of the Virginia *Waterworks Regulations* (“Regulations”) for failure to meet the disinfection treatment requirements as determined to be necessary under the Surface Water Treatment Rule (SWTR). During the monitoring period (date), the log removal of *Giardia lamblia* was (#3) and (#) for viruses. The Regulations characterize this alleged violation as a Tier 2 treatment technique violation.

Section 12VAC5-590-395 A 2 a (1) states, “The disinfection treatment shall be sufficient to ensure that the total treatment processes of that waterworks achieve at least 99.9% (3-log) inactivation or removal of *Giardia lamblia* and at least 99.99% (4-log) inactivation or removal of viruses. If any physical process can achieve at least a 3-log removal of *Giardia lamblia* but cannot adequately remove pathogens, then the disinfection treatment shall provide a second treatment barrier for *Giardia lamblia*, *Legionella*, heterotrophic bacteria, and viruses. The disinfection treatment shall be sufficient to assure at least a 0.5 log inactivation of *Giardia lamblia*.”

(Field staff may want to insert a narrative to further describe this violation situation in this NOAV. Narrative to include observations, sampling results, dates, times, etc. where appropriate.)

### **Required Actions**

In accordance with Section 12VAC5-590-540 of the Regulations, a Tier 2 violation requires you issue a Tier 2 Public Notice (“Notice”) to the consumers in the area served in accordance to the public notification requirements described below:

**Public Notice:** The Tier 2 Notice requires you to notify consumers in the area served **within 30 days** of learning of the violation. This Notice must be handled as follows:

- You must provide a Notice to consumers no later than *date*; (i.e., 30 days from date of letter or 30 days from when owner was apprised of the violation, whichever comes first.)
- Your Notice to consumers must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example) you must also use other delivery methods to provide notice to these consumers as well. Examples of other methods include (but are not limited to) notice publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the system.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved).*
- You must repeat distribution of the Notice every three months, for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved).*

**Draft Notice:** Attached is a draft Tier 2 Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *date*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26-27 and 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at *(phone number)* or email at *(email address)*.

Sincerely,

Name & Title

Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 2 Public Notice
2. Certification Form

cc: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director.  
Administrator/Manager, name of County, County

**NOTICE TO CONSUMERS  
of the (Name) WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Failure to Meet Disinfection Treatment Requirements under the SWTR**

Our water system recently violated a drinking water requirement. Although this situation does not require that you take immediate action, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation. On (date), we failed to meet the disinfection treatment requirements as determined to be necessary under the Surface Water Treatment Rule (SWTR). During the monitoring period (date), the log removal of *Giardia lamblia* was (#) and (#) for viruses. [Field staff may want to further describe the violation, to include additional specifics, such as other observations to summarize situational correctness].

**What should I do?**

- There is nothing you need to do. You do not need to boil your water or take other corrective actions. However, if you have specific health concerns, consult your doctor.
- If you have a severely compromised immune system, have an infant, are pregnant, or are elderly, you may be at increased risk and should seek advice from your health care providers about drinking this water. General guidelines on ways to lessen the risk of infection by microbes are available from EPA's Safe Drinking Water Hotline at 1-800-426-4791.

**What does this mean?**

This is not an emergency. If it had been, you would have been notified within 24 hours. Tests taken during this same time period did not indicate the presence of bacteria in the water.

*\*Inadequately treated water may contain disease-causing organisms. These organisms include bacteria, viruses, and parasites which can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.\**

These symptoms, however, are not caused only by organisms in drinking water, but also by other factors. If you experience any of these symptoms and they persist, you may want to seek medical advice.

**What is being done?**

(Field staff to describe the corrective actions required by the waterworks owner and when the violation is expected to be resolved.)

For more information, please contact (name of contact) at (phone number) or (mailing address).

*\*Please share this information with all the other people who drink this water, especially those who*

*may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by (system). State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

**VIOLATION:** Failure to Meet Disinfection Treatment Requirements under the SWTR - (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
*(Community Waterworks)*

By direct (hand) delivery on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_

Provided to the following broadcast media (list: television/radio/website/social media) on

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ (method and date)

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address



**FM-C14-T2-Attachment 8.** Failure to Install Optimal Corrosion Control Treatment under LCR.  
**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 2 TT NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

### NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Failure to Install Optimal Corrosion Control Treatment (OCCT) under LCR

Dear Waterworks Owner:

This notice is to advise that you Failure to Install Optimal Corrosion Control Treatment (OCCT) appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-405 A 1 e of the Virginia *Waterworks Regulations* (“Regulations”) for failure to install optimal corrosion control treatment (OCCT) under the Lead and Copper Rule (LCR). The Regulations characterize this alleged violation as a Tier 2 treatment technique violation.

Section 12VAC50590-405 A 1 e states, in part, “The owner shall properly install and operate throughout the waterworks the optimal corrosion control treatment approved by the [Virginia Department of Health].... A construction permit is required before installation....”

(Field staff may want to insert a narrative to further describe this violation situation in this NOAV. Narrative to include observations, sampling results, dates, times, etc. where appropriate.)

#### **Required Actions**

In accordance with Section 12VAC5-590-540 of the Regulations, a Tier 2 violation requires you issue a Tier 2 Public Notice (“Notice”) to the consumers in the area served in accordance to the public notification requirements described below:

**Public Notice:** The Tier 2 Notice requires you to notify consumers in the area served **within 30 days** of learning of the violation. This Notice must be handled as follows:

- You must provide a Notice to consumers no later than *(date)*; (i.e., 30 days from date of letter or 30 days from when owner was apprised of the violation, whichever comes first.)
- Your Notice to consumers must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example) you must also use other delivery methods to provide notice to these consumers as well. Examples of other methods include (but are not limited to) notice publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the system.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved).*
- You must repeat distribution of the Notice every three months, for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved).*

**Draft Notice:** Attached is a draft Tier 2 Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27 and 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at *(phone number)* or email at *(email address)*.

Sincerely,

Name & Title

Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 2 Public Notice
2. Certification Form

cc: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director.  
Administrator/Manager, name of County, County

**NOTICE TO CONSUMERS  
of the (Name) WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Failure to Install Optimal Corrosion Treatment (OCCT) under LCR**

Our water system recently violated a drinking water requirement. Even though this is not an emergency, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation. We routinely sample water at consumers' taps for lead. The tests show lead levels in the water above the limit, or "action level," so we are required to install corrosion control treatment. This treatment helps prevent lead in the pipes from dissolving into the water. Corrosion control should have been installed by [give date], but installation is incomplete. (Field staff may want to briefly describe the violation, to include specifics such as other observations, sample results, dates, times, etc. to summarize situational correctness).

**What should I do?**

Listed below are some steps you can take to reduce your exposure to lead:

- Call us at the number below to find out how to get your water tested for lead.
- Find out whether your pipes contain lead or lead solder.
- Run your water for 15-30 seconds or until it becomes cold before using it for drinking or cooking. This flushes any standing lead from the pipes.
- Don't cook with or drink water from the hot water tap; lead dissolves more easily into hot water.
- **Do not boil your water to remove lead.** Excessive boiling water makes the lead more concentrated – the lead remains when the water evaporates.

**What does this mean?**

This is not an emergency. If it had been, you would have been notified within 24 hours. Typically, lead enters water supplies by leaching from lead or brass pipes and plumbing components. New lead pipes and plumbing components containing lead are no longer allowed for this reason. However, many older homes may contain lead pipes. Your water is more likely to contain high lead levels if water pipes in or leading to your home are made of lead or contain lead solder.

*\*Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.\**

**What is being done?**

(Field staff to describe the corrective actions required by the waterworks owner and when the violation is expected to be resolved.)

For more information, please contact *(name of contact)* at *(phone number)* or *(mailing address)*.

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by *(system)*. State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Failure to Install Optimal Corrosion Control Treatment (OCCT) under LCR -  
(tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
*(Community/Noncommunity Waterworks)*

By direct (hand) delivery on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_

Provided to the following broadcast media *(list: television/radio/website/social media)* on

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ *(method and date)*

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address

**FM-C14-T2-Attachment 9.** Uncovered Finished Water Storage Facility under LT2 Rule.

**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 2 TT NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

### NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner

Address 1

Address 2

City, State, Zip

Re: Uncovered Finished Water Storage Facility under LT2 Rule

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-415 of the Virginia *Waterworks Regulations* (“Regulations”) for failing to provide a cover for the finished water storage facilities required under the LT2 Rule for which you were first notified on (date). The Regulations characterize this alleged violation as a Tier 2 treatment technique violation.

Section 12VAC5-590-415 states, “A. A waterworks with uncovered finished water storage facilities shall comply with the requirements to cover the facility as described in this section. B. The owner shall immediately notify the [Virginia Department of Health] of the use of each uncovered facility. C. All uncovered finished water storage facilities shall be covered in compliance with a schedule approved by the [Virginia Department of Health]. D. Failure to comply with the requirements of this section is a violation of the treatment technique requirement.”

(Field staff may want to insert a narrative to further describe this violation situation that resulted in this NOAV. Narrative to include observations, sampling results, dates, times, etc. where appropriate.)

#### **Required Actions**

In accordance with Section 12VAC5-590-540 of the Regulations, a Tier 2 violation requires you issue a Tier 2 Public Notice (“Notice”) to the consumers in the area served in accordance to the public notification requirements described below:

**Public Notice:** The Tier 2 Notice requires you to notify consumers in the area served **within 30 days** of learning of the violation. This Notice must be handled as follows:

- You must provide a Notice to consumers no later than *(date)*; (i.e., 30 days from date of letter or 30 days from when owner was apprised of the violation, whichever comes first.)
- Your Notice to consumers must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example) you must also use other delivery methods to provide notice to these consumers as well. Examples of other methods include (but are not limited to) notice publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the system.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved).*
- *(You must repeat distribution of the Notice every three months, for as long as the violation persists. (This requirement may be deleted if the violation has already been resolved).*

**Draft Notice:** Attached is a draft Tier 2 Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at *(phone number)* or email at *(email address)*.



Sincerely,

Name & Title

Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 2 Public Notice
2. Certification Form

cc or cc: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director.  
Administrator/Manager, name of County, County

**NOTICE TO CONSUMERS  
of the (Name) WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Uncovered Finished Water Storage Facility under LT2 Rule**

Our water system recently violated a drinking water requirement. Although this situation is not an emergency, as our customers, you have a right to know what happened and what we did (are doing) to correct this situation. Water systems with uncovered finished water reservoirs are required to cover these reservoirs, treat the water from these reservoirs, or be in compliance with a state-approved schedule to cover the reservoir(s) or provide treatment by April 1, 2009. We have failed to meet this requirement. (Field staff may want to briefly describe the violation, to include specifics such as observations, dates, concentration levels, etc. to summarize situational correctness).

**What should I do?**

- There is nothing you need to do. You do not need to boil your water or take other corrective actions. However, if you have specific health concerns, consult your doctor.
- If you have a severely compromised immune system, have an infant, are pregnant, or are elderly, you may be at increased risk and should seek advice from your health care providers about drinking this water. General guidelines on ways to lessen the risk of infection by microbes are available from EPA's Safe Drinking Water Hotline at 1-800-426-4791.

**What does this mean?**

This is not an emergency. If it had been, you would have been notified within 24 hours.

Uncovered finished water reservoirs are a pathway for contaminants to enter the drinking water supply. Therefore, it is necessary to cover the reservoirs or treat the discharge.

*\*Inadequately treated water may contain disease-causing organisms. These organisms include bacteria, viruses, and parasites which can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.\**

These symptoms, however, are not caused only by organisms in drinking water, but also by other factors. If you experience any of these symptoms and they persist, you may want to seek medical advice.

**What is being done?**

(Field staff to describe the corrective actions required by the waterworks owner and when the violation is expected to be resolved.)

For more information, please contact (name of contact) at (phone number) or (mailing address).

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by (system). State Water System ID#: \_\_\_\_\_.  
Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Uncovered Finished Water Storage Facility under LT2 Rule – (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
*(Community Waterworks)*

By direct (hand) delivery on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_  
\_\_\_\_\_

Provided to the following broadcast media (list: television/radio/website/social media) on

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ (method and date)

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address

**FM-C14-T2-Attachment 10.** Failure to Comply with a Required Testing Procedure.

**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 2 NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

## NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner

Address 1

Address 2

City, State, Zip

Re: Failure to Comply with a Required Testing Procedure

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-440 A of the Virginia *Waterworks Regulations* (“Regulations”) for failure to comply with a required testing procedure as allowed through certified laboratories. The Regulations characterize this alleged violation as a Tier 2 violation.

Section 12VAC5-590-440 A states, “All drinking water analyses for compliance purposes shall be performed by analytical methods that are consistent with current EPA regulations found at 40 CFR Part 141 and 40 CFR Part 143. Standards for laboratories seeking certification to perform drinking water analyses are found in the Regulation for the Certification of Laboratories Analyzing Drinking Water (1VAC30-41) and regulations for the Accreditation for Commercial Environmental Laboratories (1VAC30-46) promulgated by the Department of General Services, DCLS.”

### **Required Actions**

In accordance with Section 12VAC5-590-540 of the Regulations, a Tier 2 violation requires you issue a Tier 2 Public Notice (“Notice”) to the consumers in the area served in accordance to the public notification requirements described below:

**Public Notice:** The Tier 2 Notice requires you to notify consumers in the area served **within 30 days** of learning of the violation. This Notice must be handled as follows:

- You must provide a Notice to consumers no later than *date*; (i.e., 30 days from date of letter or 30 days from when owner was apprised of the violation, whichever comes first.)
- Your Notice to consumers must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example) you must also use other delivery methods to provide notice to these consumers as well. Examples of other methods include (but are not limited to) notice publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the system.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved).*
- You must repeat distribution of the Notice every three months, for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved).*

**Draft Notice:** Attached is a draft Tier 2 Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *date*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at *(phone number)* or email at *(email address)*.

Sincerely,

Name & Title

Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 2 Public Notice
2. Certification Form

cc: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director.  
Administrator/Manager, name of County, County

**NOTICE TO CONSUMERS  
of the *(Name)* WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Failure to Comply with a Required Testing Procedure**

Our water system recently violated a drinking water regulation. Although this situation does not require that you take immediate action, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation. On *(date)*, we failed to comply with a required testing procedure [*Field staff may want to further describe the violation, to include additional specifics, such as other observations to summarize situational correctness*].

**What should I do?**

- There is nothing you need to do. You do not need to boil your water or take other corrective actions. However, if you have specific health concerns, consult your doctor.
- If you have a severely compromised immune system, have an infant, are pregnant, or are elderly, you may be at increased risk and should seek advice from your health care providers about drinking this water.

**What does this mean?**

This is not an emergency. If it had been, you would have been notified within 24 hours.

**What is being done?**

*(Field staff to describe the corrective actions required by the waterworks owner and when the violation is expected to be resolved.)*

For more information, please contact *(name of contact)* at *(phone number)* or *(mailing address)*.

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by *(system)*. State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.



SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

**VIOLATION:** Failure to Comply with a Required Testing Procedure– (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
*(Community/Noncommunity Waterworks)*

By direct (hand) delivery on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_  
\_\_\_\_\_

Provided to the following broadcast media (list: television/radio/website/social media) on

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ (method and date)

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address

**FM-C14-T2-Attachment 11.** Failure to Comply with Terms and Conditions of an Exemption.  
**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 2 NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

## NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Failure to Comply with Terms and Conditions of an Exemption

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-530 G of the Virginia *Waterworks Regulations* (“Regulations”) for failure to report within 48 hours of noncompliance with the requirements of the schedule prescribed pursuant to an exemption. The Regulations characterize this alleged violation as a Tier 2 violation.

Section 12VAC5-590-530 G states, “The owner shall report to the [Virginia Department of Health] within 48 hours of the failure to comply with the requirements of the schedule prescribed pursuant to a variance or exemption.”

Field staff may want to insert a narrative to further describe this violation situation in this NOAV. Narrative to include observations, sampling results, dates, times, etc. where appropriate.)

### **Required Actions**

In accordance with Section 12VAC5-590-540 of the Regulations, a Tier 2 violation requires you issue a Tier 2 Public Notice (“Notice”) to the consumers in the area served in accordance to the public notification requirements described below:

**Public Notice:** The Tier 2 Notice requires you to notify consumers in the area served **within 30 days** of learning of the violation. This Notice must be handled as follows:

- You must provide a Notice to consumers no later than *(date)*; (i.e., 30 days from date of letter or 30 days from when owner was apprised of the violation, whichever comes first.)
- Your Notice to consumers must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example) you must also use other delivery methods to provide notice to these consumers as well. Examples of other methods include (but are not limited to) notice publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the system.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved).*
- *(You must repeat distribution of the Notice every three months, for as long as the violation persists. (This requirement may be deleted if the violation has already been resolved).*

**Draft Notice:** Attached is a draft Tier 2 Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at *(phone number)* or email at *(email address)*.

Sincerely,

Name & Title  
Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 2 Public Notice
2. Certification Form

cc: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director.  
Administrator/Manager, name of County, County

**NOTICE TO CONSUMERS  
of the (Name) WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Failure to Comply with Terms and Conditions of an Exemption**

Our water system recently violated one of the conditions of our *[specify contaminant]* exemption. An exemption allows eligible systems additional time to build capacity in order to comply with a drinking water standard. This waterworks was granted an exemption for the *[specify contaminant]* standard so that we could raise funds for a new treatment process to remove *[specify contaminant]*. As a condition of the exemption, we agreed to secure funding by *[give date]*. We did not meet this deadline. *[Field staff may want to further describe the violation, to include additional specifics, such as other observations to summarize situational correctness].*

**What should I do?**

There is nothing you need to do. You do not need to boil your water or take other corrective actions. You may continue to drink the water. If a situation arises where the water is no longer safe to drink, you will be notified within 24 hours. However, if you have specific health concerns, consult your doctor. We will post this information on our Web site at *(name of---www.ourwatersystem. com)*.

**What does this mean?**

This is not an emergency. If it had been, you would have been notified within 24 hours.

*(Depending on the specific contaminant(s), staff will need to add the mandatory health effects language from Section 12VAC5-590-546).*

**What is being done?**

*[Field staff to describe the corrective actions required by the waterworks owner and when the violation is expected to be resolved.]*

For more information, please contact *(name of contact)* at *(phone number)* or *(mailing address)*. You can also visit our Web site at *(name of---www.ourwatersystem. com)*.

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by *(system)*. State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Failure to Comply with Terms and Conditions of an Exemption - (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
(Community Waterworks)

By direct (hand) delivery on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_

Provided to the following broadcast media (list: television/radio/website/social media) on

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ (method and date)

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address

**FM-C14-T2-Attachment 12.** Failure to Comply with Terms and Conditions of a Variance.

**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 2 NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

## NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner

Address 1

Address 2

City, State, Zip

Re: Failure to Comply with Terms and Conditions of a Variance

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-530 G of the Virginia *Waterworks Regulations* (“Regulations”) for failure to report within 48 hours of noncompliance with the requirements of the schedule prescribed pursuant to a variance. The Regulations characterize this alleged violation as a Tier 2 violation.

Section 12VAC5-590-530 G states, “The owner shall report to the [Virginia Department of Health] within 48 hours of the failure to comply with the requirements of the schedule prescribed pursuant to a variance or exemption.”

(Field staff may want to insert a narrative to further describe this violation situation in this NOAV. Narrative to include observations, sampling results, dates, times, etc. where appropriate.)

### **Required Actions**

In accordance with Section 12VAC5-590-540 of the Regulations, a Tier 2 violation requires you issue a Tier 2 Public Notice (“Notice”) to the consumers in the area served in accordance to the public notification requirements described below:

**Public Notice:** The Tier 2 Notice requires you to notify consumers in the area served **within 30 days** of learning of the violation. This Notice must be handled as follows:

- You must provide a Notice to consumers no later than *(date)*; (i.e., 30 days from date of letter or 30 days from when owner was apprised of the violation, whichever comes first.)
- Your Notice to consumers must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example) you must also use other delivery methods to provide notice to these consumers as well. Examples of other methods include (but are not limited to) notice publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the system.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved).*
- *(You must repeat distribution of the Notice every three months, for as long as the violation persists. (This requirement may be deleted if the violation has already been resolved).*

**Draft Notice:** Attached is a draft Tier 2 Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at *(phone number)* or email at *(email address)*.



Sincerely,

Name & Title

Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 2 Public Notice
2. Certification Form

cc: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director.  
Administrator/Manager, name of County, County

**NOTICE TO CONSUMERS  
of the (Name) WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Failure to Comply with Terms and Conditions of a Variance**

Our water system recently violated one of the conditions of our *[specify contaminant or treatment technique]* variance. A variance allows eligible systems additional time to build capacity in order to comply with a drinking water standard. This waterworks was granted a variance for the *specify contaminant or treatment technique* standard so that we could raise funds for a new treatment process to remove *specify contaminant or treatment technique*. As a condition of the variance, we agreed to secure funding by *[give date]*. We did not meet this deadline. We failed to report within 48 hours of noncompliance with the requirements of the schedule prescribed pursuant to a variance issued to this waterworks. *[Field staff may want to further describe the violation, to include additional specifics, such as other observations to summarize situational correctness.]*

**What should I do?**

There is nothing you need to do. You do not need to boil your water or take other corrective actions. You may continue to drink the water. If a situation arises where the water is no longer safe to drink, you will be notified within 24 hours. However, if you have specific health concerns, consult your doctor. We will post this information on our Web site at *(name of---www.ourwatersystem.com)*.

**What does this mean?**

This is not an emergency. If it had been, you would have been notified within 24 hours.

*(Depending on the specific contaminant(s), staff will need to add the mandatory health effects language from Section 12VAC5-590-546).*

**What is being done?**

*[Field staff to describe the corrective actions required by the waterworks owner and when the violation is expected to be resolved.]*

For more information, please contact *(name of contact)* at *(phone number)* or *(mailing address)*. You can also visit our Web site at *(name of---www.ourwatersystem.com)*.

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by *(system)*. State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Failure to Comply with Terms and Conditions of a Variance - (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
(Community Waterworks)

By direct (hand) delivery on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_

Provided to the following broadcast media (list: television/radio/website/social media) on

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ (method and date)

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address

**FM-C14-T2-Attachment 13.** Exceeding the Primary Maximum Contaminant Level (PMCL) for Fluoride.

**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 2 NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

### NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Exceeding the Primary Maximum Contaminant Level (PMCL) for Fluoride

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-340 C of the Virginia *Waterworks Regulations* (“Regulations”) for exceeding the Primary Maximum Contaminant Level (PMCL) for fluoride during the (compliance period) at the [if applicable, name the entry point(s)]. The PMCL for the fluoride is 4.0 mg/L. The Regulations characterize this alleged violation as a Tier 2 violation.

Section 12VAC5-590-340 C states, in part, “Compliance is determined: 1. Based on sample results or calculated averages, where appropriate, rounded to the same number of significant figures as the PMCL...of the contaminant in question....” Table 340.1 specifies the PMCL for the fluoride is 4.0 mg/L.

(Field staff may want to insert a narrative to further describe this violation situation in this NOAV. Narrative to include observations, sampling results, dates, times, etc. where appropriate).

#### **Required Actions**

In accordance with Section 12VAC5-590-540 of the Regulations, a Tier 2 violation requires you issue a Tier 2 Public Notice (“Notice”) to the consumers in the area served in accordance to the public notification requirements described below:

**Public Notice:** The Tier 2 Notice requires you to notify consumers in the area served **within 30 days** of learning of the violation. This Notice must be handled as follows:

- You must provide a Notice to consumers no later than *date*; (i.e., 30 days from date of letter or 30 days from when owner was apprised of the violation, whichever comes first.)
- Your Notice to consumers must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example) you must also use other delivery methods to provide notice to these consumers as well. Examples of other methods include (but are not limited to) notice publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the system.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved).*
- You must repeat distribution of the Notice every three months, for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved).*

**Draft Notice:** Attached is a draft Tier 2 Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *date*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at *(phone number)* or email at *(email address)*.

Sincerely,

Name & Title

Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 2 Public Notice

2. Certification Form

cc or cc: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director.  
Administrator/Manager, name of County, County

**NOTICE TO CONSUMERS  
of the *(Name)* WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Exceeding the Primary Maximum Contaminant Level (PMCL) for Fluoride**

Our water system recently violated a drinking water standard. Although this is not an emergency, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation. We routinely monitor for the presence of drinking water contaminants. On *[give date]*, we received notice that the sample collected on *[give date]* showed that our system exceeds the standard, or primary maximum contaminant level (PMCL), for fluoride. The average level of fluoride in samples taken during the last year was *[provide level and units]*. The standard for fluoride is that the average of samples taken over the last year may not exceed 4.0 mg/L. *Field staff may want to further describe the violation, to include specifics such as population at risk, use of alternate water supplies, confirmation and quarterly samples, sample IDs, concentration levels, dates, times, etc. to summarize situational correctness).*

**What should I do?**

Children under the age of nine should use an alternative source of water that is low in fluoride. In addition, you may want to consult your dentist about whether to avoid dental products containing fluoride. Adults and children over age nine should consult their dentist or doctor and show him/her this notice to determine if an alternate source of water low in fluoride should be used.

**What does this mean?**

This is not an emergency. If it had been, you would have been notified within 24 hours. Fluoride in small amounts helps prevent tooth decay.

*\*Some people who drink water containing fluoride in excess of the PMCL over many years could get bone disease, including pain and tenderness of the bones. Fluoride in drinking water at half the PMCL or greater may cause mottling of children's teeth, usually in children less than nine years old. Mottling, also known as dental fluorosis, may include brown staining and/or pitting of the permanent teeth. This problem occurs only in developing teeth, before they erupt from the gums.\**

Although it takes many years of exposure to fluoride for bone disease to develop, mottling can occur after a relatively short period of exposure.

**What is being done?**

*(Field staff to describe the corrective actions required by the waterworks owner and when the violation is expected to be resolved.)*

For more information, please contact *(name of contact)* at *(phone number)* or *(mailing address)*.

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by (system). State Water System ID#: \_\_\_\_\_.  
Date distributed: \_\_\_\_\_.



SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

**VIOLATION:** Exceeding the Primary Maximum Contaminant Level (PMCL) for Fluoride - (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
(Community Waterworks)

By direct (hand) delivery on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_

Provided to the following broadcast media (list: television/radio/website/social media) on

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ (method and date)

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address

**FM-C14-T2-Attachment 14.** Failure to Maintain the Required 4-Log Treatment of Viruses for > 4 Hours.

**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 2 NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

### NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Failure to Maintain the Required 4-Log Treatment of Viruses for > 4 Hours

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-421 C 1 d of the Virginia *Waterworks Regulations* (“Regulations”) for failing to maintain the required 4-log treatment for more than 4 hours on (date). The Regulations characterize this alleged violation as a Tier 2 treatment technique violation.

Section 12VAC5-590-421 C 1 d states, in part, “Failure to maintain the [Virginia Department of Health]-specified minimum residual disinfectant concentration for a period of more than four hours is a violation of the treatment technique requirement.”

Section 12VAC5-590-540 A 2 d identifies as a Tier 2 violation, “Failure to take corrective action or failure to maintain at least 4-log treatment of viruses (using inactivation, removal, or an approved combination of 4-log virus inactivation and removal) before or at the first customer under the treatment technique requirements for waterworks with groundwater sources.”

(Field staff may want to insert a narrative to further describe this violation situation in this NOAV. Narrative to include observations, sampling results, dates, times, etc. where appropriate.)

## **Required Actions**

In accordance with Section 12VAC5-590-540 of the Regulations, a Tier 2 violation requires you issue a Tier 2 Public Notice (“Notice”) to the consumers in the area served in accordance to the public notification requirements described below:

**Public Notice:** The Tier 2 Notice requires you to notify consumers in the area served **within 30 days** of learning of the violation. This Notice must be handled as follows:

- You must provide a Notice to consumers no later than *(date)*; (i.e., 30 days from date of letter or 30 days from when owner was apprised of the violation, whichever comes first.)
- Your Notice to consumers must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example) you must also use other delivery methods to provide notice to these consumers as well. Examples of other methods include (but are not limited to) notice publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the system.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved).*
- You must repeat distribution of the Notice every three months, for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved).*

**Draft Notice:** Attached is a draft Tier 2 Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil

charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at (phone number) or email at (email address).

Sincerely,

Name & Title  
Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 2 Public Notice
2. Certification Form

cc: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director. Administrator/Manager, name of County, County

**NOTICE TO CONSUMERS  
of the *(Name)* WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Failure to Maintain the Required 4-Log Treatment of Viruses for > 4 Hours**

Our water system recently violated a drinking water requirement. Although this incident was not an emergency, as our customers, you have a right to know what happened and what we did (are doing) to correct this situation.

We are required to *[treat/disinfect]* our drinking water source. From *[give date]* to *[give date]*, we did not meet one or more of our treatment requirements *[e.g., provide sufficient levels of disinfectant/ provide adequate contact time/meet alternative treatment criteria, etc.]* due to *[describe issue, e.g., malfunctioning equipment]*. We failed to maintain the required 4-log treatment for more than 4 hours at the waterworks. *(Field staff to briefly describe the violation, to include specifics such as dates, concentration levels, etc. to summarize situational correctness.)*

**What should I do?**

- There is nothing you need to do. You do not need to boil your water or take other corrective actions. However, if you have specific health concerns, consult your doctor.
- If you have a severely compromised immune system, have an infant, are pregnant, or are elderly, you may be at increased risk and should seek advice from your health care providers about drinking this water. General guidelines on ways to lessen the risk of infection by microbes are available from EPA's Safe Drinking Water Hotline at 1-800-426-4791.

**What does this mean?**

This is not an emergency. If it had been, you would have been notified within 24 hours.

*\*Inadequately treated water may contain disease-causing organisms. These organisms include bacteria, viruses, and parasites which can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.\**

These symptoms, however, are not caused only by organisms in drinking water, but also by other factors. If you experience any of these symptoms and they persist, you may want to seek medical advice. While we have not detected any evidence of contamination in, or other health threats to, our source water, we are still committed to restoring the required level of treatment to the water to eliminate the threat of contamination.

**What is being done?**

*(Field staff to describe the corrective actions required by the waterworks owner and when the violation is expected to be resolved.)*

For more information, please contact *(name of contact)* at *(phone number)* or *(mailing address)*.

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by *(system)*. State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Failure to Maintain the Required 4-Log Treatment of Viruses for > 4 Hours -  
(tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
*(Community/Noncommunity Waterworks)*

By direct (hand) delivery on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_

Provided to the following broadcast media *(list: television/radio/website/social media)* on

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ *(method and date)*

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address

**FM-C14-T2-Attachment 15.** Failure to Take Corrective Actions within Required Time Frames under GWR.

**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 2 NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

### NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner

Address 1

Address 2

City, State, Zip

Re: Failure to Take Corrective Actions within Required Time Frames under the Groundwater Rule

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-392 D 2 of the Virginia *Waterworks Regulations* (“Regulations”) for failure to take corrective actions as determined through sanitary survey observations under the Groundwater Rule (GWR). The Regulations characterize this alleged violation as a Tier 2 violation.

Section 12VAC5-590-392 D 2 states, “The owner shall complete the corrective actions in compliance with the timetable approved by the [Virginia Department of Health] in consultation with the owner. The owner shall notify the [Virginia Department of Health] no later than seven days after each scheduled corrective action is completed.”

(Field staff may want to insert a narrative to further describe this violation situation in this NOAV. Narrative to include observations, sampling results, dates, times, etc. where appropriate.)

### **Required Actions**

In accordance with Section 12VAC5-590-540 of the Regulations, a Tier 2 violation requires you issue a Tier 2 Public Notice (“Notice”) to the consumers in the area served in accordance to the public notification requirements described below:



**Public Notice:** The Tier 2 Notice requires you to notify consumers in the area served **within 30 days** of learning of the violation. This Notice must be handled as follows:

- You must provide a Notice to consumers no later than *date*; (i.e., 30 days from date of letter or 30 days from when owner was apprised of the violation, whichever comes first.)
- Your Notice to consumers must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example) you must also use other delivery methods to provide notice to these consumers as well. Examples of other methods include (but are not limited to) notice publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the system.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved).*
- You must repeat distribution of the Notice every three months, for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved).*

**Draft Notice:** Attached is a draft Tier 2 Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *date*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at *(phone number)* or email at *(email address)*.

Sincerely,

Name & Title

Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 2 Public Notice
2. Certification Form

*cc: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director.  
Administrator/Manager, name of County, County*

**NOTICE TO CONSUMERS**  
**of the *(Name)* WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Failure to Take Corrective Actions within Required Time Frames under GWR**

Our water system recently violated a drinking water requirement. Although this incident was not an emergency, as our customers, you have a right to know what happened and what we did (are doing) to correct this situation.

A routine inspection conducted on *[give date]* by the *(name of)* Field Office found *[describe significant deficiency in our water system]]* OR *[Sampling conducted at our groundwater source on [given date(s)] found indication of fecal contamination of our source(s)].* As required by the Ground Water Rule, we were required to take action to *[correct this deficiency/address the fecal-indicator positive source sample]*. However, we failed to take this action by the deadline established by *(name of)* Field Office. *(Field staff may want to briefly describe the violation, to include specifics such as other observations, sample results, dates, times, etc. to summarize situational correctness).*

**What should I do?**

- There is nothing you need to do. You do not need to boil your water or take other corrective actions. However, if you have specific health concerns, consult your doctor.
- If you have a severely compromised immune system, have an infant, are pregnant, or are elderly, you may be at increased risk and should seek advice from your health care providers about drinking this water. General guidelines on ways to lessen the risk of infection by microbes are available from EPA's Safe Drinking Water Hotline at 1-800-426-4791.

**What does this mean?**

This is not an emergency. If it had been, you would have been notified within 24 hours.

*\*Inadequately treated water may contain disease-causing organisms. These organisms include bacteria, viruses, and parasites which can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.\**

These symptoms, however, are not caused only by organisms in drinking water, but also by other factors. If you experience any of these symptoms and they persist, you may want to seek medical advice.

**What is being done?**

*(Field staff to describe the corrective actions required by the waterworks owner and when the violation is expected to be resolved.)*

For more information, please contact *(name of contact)* at *(phone number)* or *(mailing address)*.

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by (system). State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Failure to Take Corrective Actions within Required Time Frames under GWR - (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
*(Community/Noncommunity Waterworks)*

By direct (hand) delivery on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_

Provided to the following broadcast media *(list: television/radio/website/social media)* on

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ *(method and date)*

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address

**FM-C14-T2-Attachment 16.** Exceeding the Primary Maximum Contaminant Level (PMCL) of a Radiological Contaminant.

**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 2 NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

**NOTICE OF ALLEGED VIOLATION**

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Exceeding the Primary Maximum Contaminant Level (PMCL) of a Radiological Contaminant

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-388 B of the Virginia *Waterworks Regulations* (“Regulations”) for exceeding the Primary Maximum Contaminant Level (PMCL) of (specify the PMCL value of the radiological contaminant and the analytical result). The Regulations characterize this alleged violation as a Tier 2 violation.

Section 12VAC5-590-388 B states, in part, “PMCLs for radionuclides are applicable to community waterworks only.... Compliance with PMCLs will be determined based on the analytical results obtained at each entry point. If the sample result at one entry point exceeds the PMCL, then the owner is in violation of the PMCL.”

(Field staff may want to insert a narrative to further describe this violation situation in this NOAV. Narrative to include observations, sampling results, dates, times, etc. where appropriate.)

**Required Actions**

In accordance with Section 12VAC5-590-540 of the Regulations, a Tier 2 violation requires you issue a Tier 2 Public Notice (“Notice”) to the consumers in the area served in accordance to the public notification requirements described below:

**Public Notice:** The Tier 2 Notice requires you to notify consumers in the area served **within 30 days** of learning of the violation. This Notice must be handled as follows:

- You must provide a Notice to consumers no later than *date*; (i.e., 30 days from date of letter or 30 days from when owner was apprised of the violation, whichever comes first.)
- Your Notice to consumers must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example) you must also use other delivery methods to provide notice to these consumers as well. Examples of other methods include (but are not limited to) notice publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the system.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved).*
- You must repeat distribution of the Notice every three months, for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved).*

**Draft Notice:** Attached is a draft Tier 2 Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *date*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at *(phone number)* or email at *(email address)*.

Sincerely,

Name & Title  
Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 2 Public Notice
2. Certification Form

cc: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director.  
Administrator/Manager, name of County, County



**NOTICE TO CONSUMERS  
of the (Name) WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Exceeding the Primary Maximum Contaminant Level (PMCL) for Specify Radiological Contaminant**

Our water system recently violated a drinking water standard. Although this is not an emergency, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation. We routinely monitor for the presence of drinking water contaminants. On *[give date]*, we have been advised by State Health Officials that the water supplied by this waterworks during *(quarter, year, or period)* showed that our system exceeds the standard, or primary maximum contaminant level (PMCL), for *[specify radiological contaminant]*. The standard for *[specify radiological contaminant]* is *[#]* mg/L. The average level of *[specify radiological contaminant]* over the last year has been *[provide level]*. *OR [Specify radiological contaminant] was found at [provide level]. Field staff may want to further describe the violation, to include specifics such as population at risk, use of alternate water supplies, confirmation and quarterly samples, sample IDs, concentration levels, dates, times, etc. to summarize situational correctness).*

**What should I do?**

- There is nothing you need to do. You do not need to boil your water or take other corrective actions. However, if you have specific health concerns, consult your doctor.
- If you have a severely compromised immune system, have an infant, are pregnant, or are elderly, you may be at increased risk and should seek advice from your health care providers about drinking this water.

**What does this mean?**

This is not an emergency. If it had been, you would have been notified within 24 hours.

*(Depending on the specific radiological contaminant in question, staff will need to add the mandatory health effects language from Section 12VAC5-590-546).*

**What is being done?**

*(Field staff to describe the corrective actions required by the waterworks owner and when the violation is expected to be resolved.)*

For more information, please contact *(name of contact)* at *(phone number)* or *(mailing address)*.

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing*

*copies by hand or mail.\**

This notice is being sent to you by (system). State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

**VIOLATION:** Exceeding the Primary Maximum Contaminant Level (PMCL) of a Radiological Contaminant - (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
*(Community Waterworks)*

By direct (hand) delivery on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_

Provided to the following broadcast media (list: television/radio/website/social media) on

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ (method and date)

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address

**FM-C14-T2-Attachment 17.** Exceeding the Maximum Residual Disinfectant Level (MRDL) for Chlorine.

**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 2 NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

### NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Exceeding the Maximum Residual Disinfectant Level (MRDL) for Chlorine

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-340 of the Virginia *Waterworks Regulations* (“Regulations”) for violating the maximum residual disinfectant level (MRDL) for chlorine of 4.0 mg/L. For the (monitoring period), the calculated MRDL was (#) mg/L for chlorine. The Regulations characterize this alleged violation as a Tier 2 violation.

Section 12VAC5-590-340, at Table 340.7, sets forth a MRDL for chlorine of 4.0 mg/L.

Section 12VAC5-590-384 C 1 states, in part, “Compliance shall be based on a running annual arithmetic average, computed quarterly, of monthly averages of all samples collected by the owner .... If the average covering any consecutive four-quarter period exceeds the MRDL..., then the owner is in violation of the MRDL and shall notify the public....”

(Field staff may want to insert a narrative to further describe this violation situation in this NOAV. Narrative to include observations, sampling results, dates, times, etc. where appropriate.)

#### **Required Actions**

In accordance with Section 12VAC5-590-540 of the Regulations, a Tier 2 violation requires you issue a Tier 2 Public Notice (“Notice”) to the consumers in the area served in accordance to the public notification requirements described below:

**Public Notice:** The Tier 2 Notice requires you to notify consumers in the area served **within 30 days** of learning of the violation. This Notice must be handled as follows:

- You must provide a Notice to consumers no later than *(date)*; (i.e., 30 days from date of letter or 30 days from when owner was apprised of the violation, whichever comes first.)
- Your Notice to consumers must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example) you must also use other delivery methods to provide notice to these consumers as well. Examples of other methods include (but are not limited to) notice publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the system.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved).*
- You must repeat distribution of the Notice every three months, for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved).*

**Draft Notice:** Attached is a draft Tier 2 Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at *(phone number)* or email at *(email address)*.

Sincerely,

Name & Title

Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 2 Public Notice
2. Certification Form

cc or cc: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director.  
Administrator/Manager, name of County, County

**NOTICE TO CONSUMERS  
of the (Name) WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Exceeding the Maximum Residual Disinfectant Level (MRDL) for Chlorine**

Our water system recently violated a drinking water standard. Although this situation does not require that you take immediate action, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation. Based on the maximum residual disinfectant level (MRDL) of the samples collected during the (monitoring period), our waterworks exceeded the MRDL for chlorine. The MRDL for chlorine is 4.0 mg/L, whereas the calculated MRDL was (#) mg/L. [Field staff may want to further describe the violation, to include additional specifics, such as other observations, dates, concentration levels, etc. to summarize situational correctness.]

**What should I do?**

- There is nothing you need to do. You do not need to boil your water or take other corrective actions. However, if you have specific health concerns, consult your doctor.
- If you have a severely compromised immune system, have an infant, are pregnant, or are elderly, you may be at increased risk and should seek advice from your healthcare providers about drinking this water.

**What does this mean?**

This is not an emergency. If it had been, you would have been notified within 24 hours.

**What is being done?**

[Field staff to describe the corrective actions required by the waterworks owner and when the violation is expected to be resolved.]

For more information, please contact (name of contact) at (phone number) or (mailing address).

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by (system). State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Exceeding the Maximum Residual Disinfectant Level (MRDL) for Chlorine-(tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
*(Community Waterworks)*

By direct (hand) delivery on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_

Provided to the following broadcast media (list: television/radio/website/social media) on

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ (method and date)

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address



**FM-C14-T2-Attachment 18.** Exceeding the Maximum Residual Disinfectant Level (MRDL) for Chloramine

**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 2 NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

### NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Exceeding the Maximum Residual Disinfectant Level (MRDL) for Chloramine

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-340 of the Virginia *Waterworks Regulations* (“Regulations”) for violating the maximum residual disinfectant level (MRDL) for chloramines of 4.0 mg/L. For the *(monitoring period)*, the calculated MRDL was [#] mg/L for chloramines. The Regulations characterize this alleged violation as a Tier 2 violation.

Section 12VAC5-590-340, at Table 340.7, sets forth a MRDL for chloramines of 4.0 mg/L.

Section 12VAC5-590-384 C 1 states, in part, “Compliance shall be based on a running annual arithmetic average, computed quarterly, of monthly averages of all samples collected by the owner .... If the average covering any consecutive four-quarter period exceeds the MRDL..., then the owner is in violation of the MRDL and shall notify the public...”

[Field staff to insert a narrative to authenticate the situational correctness of this NOAV based on the selection(s) above, taking into account also the urgency of the situation. Narrative to include dates and times where appropriate.]

#### **Required Actions**

In accordance with Section 12VAC5-590-540 of the Regulations, a Tier 2 violation requires you issue a Tier 2 Public Notice (“Notice”) to the consumers in the area served in accordance to the

public notification requirements described below:

**Public Notice:** The Tier 2 Notice requires you to notify consumers in the area served **within 30 days** of learning of the violation. This Notice must be handled as follows:

- You must provide a Notice to consumers no later than *(date)*; (i.e., 30 days from date of letter or 30 days from when owner was apprised of the violation, whichever comes first.)
- Your Notice to consumers must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example) you must also use other delivery methods to provide notice to these consumers as well. Examples of other methods include (but are not limited to) notice publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the system.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved).*
- *(You must repeat distribution of the Notice every three months, for as long as the violation persists. (This requirement may be deleted if the violation has already been resolved).*

**Draft Notice:** Attached is a draft Tier 2 Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at *(phone number)* or

email at (email address).

Sincerely,

Name & Title  
Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 2 Public Notice
2. Certification Form

ec or cc: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director.  
Administrator/Manager, name of County, County

**NOTICE TO CONSUMERS  
of the (Name) WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Exceeding the Maximum Residual Disinfectant Level (MRDL) for Chloramine**

Our water system recently violated a drinking water standard. Although this situation does not require that you take immediate action, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation. For the (monitoring period), based on the samples collected the calculated MRDL of (#) mg/L exceeded the MRDL of 4.0 mg/L for chloramine disinfection. [Field staff may want to further describe the violation, to include additional specifics, such as other observations, dates, concentration levels, etc. to summarize situational correctness.]

**What should I do?**

- There is nothing you need to do. You do not need to boil your water or take other corrective actions. However, if you have specific health concerns, consult your doctor.
- If you have a severely compromised immune system, have an infant, are pregnant, or are elderly, you may be at increased risk and should seek advice from your healthcare providers about drinking this water.

**What does this mean?**

This is not an emergency. If it had been, you would have been notified within 24 hours.

**What is being done?**

[Field staff to describe the corrective actions required by the waterworks owner and when the violation is expected to be resolved.]

For more information, please contact (name of contact) at (phone number) or (mailing address).

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by (system). State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

**VIOLATION:** Exceeding the Maximum Residual Disinfectant Level (MRDL) for Chloramine Disinfection - (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
*(Community Waterworks)*

By direct (hand) delivery on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_

Provided to the following broadcast media (list: television/radio/website/social media) on

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ (method and date)

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address

**FM-C14-T2-Attachment 19.** LRAA PMCL Exceedance for DBPs - TTHMs and/or HAA5s under Stage 2 Rule.

**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 2 NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

### NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: LRAA PMCL Exceedance for Disinfection Byproducts - TTHMs and/or HAA5s under Stage 2 Rule

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-384 B 1 a of the Virginia *Waterworks Regulations* (“Regulations”) for exceeding the locational running annual average (LRAA) for TTHMs and/or HAA5s under the Stage 2 Rule.

(Option 1 – TTHM Only)

The LRAA for the TTHM concentration was (#) mg/L for the scheduled samples collected on (dates), respectively. The Primary Maximum Contaminant Level (PMCL) for TTHM is 0.080 mg/L. The Regulations characterize this alleged violation as a Tier 2 violation.

(Option 1 – HAA5 Only)

The LRAA for the HAA5s concentration was (#) mg/L for the scheduled samples collected on (dates), respectively. The Primary Maximum Contaminant Level (PMCL) for HAA5 is 0.060 mg/L. The Regulations characterize this alleged violation as a Tier 2 violation.

(Option 3 – Both TTHM and HAA5)

The LRAA for the TTHMs and HAA5s concentrations were (#) mg/L and (#) mg/L, respectively, for the scheduled samples collected on (dates), respectively. The Primary Maximum Contaminant Level (CLs) for TTHMs and HAA5s are 0.080 mg/L and 0.060 mg/L, respectively. The Regulations characterize this alleged violation as a Tier 2 violation.

Section 12VAC5-590-384 B 1 a states, “The owner of a waterworks required to monitor quarterly shall calculate the LRAAs for TTHM and HAA5 using monitoring results collected under 12VAC5-590-374 F and determine that each LRAA does not exceed the PMCL in order to comply with the PMCLs listed in Table 340.6. If the owner fails to complete four consecutive quarters of monitoring, then the owner shall calculate compliance with the PMCL based on the average of the available data from the most recent four quarters. If the owner collects more than one sample per quarter at a monitoring location, then the owner shall average all samples collected in the quarter at that location to determine a quarterly average to be used in the LRAA calculation.”

*(Field staff may want to insert a narrative to further describe this violation situation in this NOAV. Narrative to include observations, sampling results, dates, times, etc. where appropriate.)*

### **Required Actions**

In accordance with Section 12VAC5-590-540 of the Regulations, a Tier 2 violation requires you issue a Tier 2 Public Notice (“Notice”) to the consumers in the area served in accordance to the public notification requirements described below:

**Public Notice:** The Tier 2 Notice requires you to notify consumers in the area served **within 30 days** of learning of the violation. This Notice must be handled as follows:

- You must provide a Notice to consumers no later than *(date)*; (i.e., 30 days from date of letter or 30 days from when owner was apprised of the violation, whichever comes first.)
- Your Notice to consumers must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example) you must also use other delivery methods to provide notice to these consumers as well. Examples of other methods include (but are not limited to) notice publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the system.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved).*
- You must repeat distribution of the Notice every three months, for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved).*

**Draft Notice:** Attached is a draft Tier 2 Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at *(phone number)* or email at *(email address)*.

Sincerely,

*Name & Title*  
*Field office name*

*ABC:xyz*

Enclosures: *(If applicable, insert any other relevant information)*

1. Draft Tier 2 Public Notice
2. Certification Form

*ec: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director. Administrator/Manager, name of County, County*



**NOTICE TO CONSUMERS  
of the *(Name)* WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**X  
LRAA PMCL Exceedance for Disinfection Byproducts - TTHMs and/or HAA5s under  
Stage 2 Rule**

Our water system recently violated a drinking water standard. Although this incident was not an emergency, as our customers, you have a right to know what happened and what we did (are doing) to correct this situation.

We routinely monitor for the presence of drinking water contaminants. Testing results from *[provide date range]* show that our system exceeds the standard, or maximum contaminant level (MCL), for *[TTHM and/or HAA5]*. The standard for *[TTHM and/or HAA5]* is *[#]* mg/L (TTHM) and *[#]* mg/L (HAA5), respectively. It is determined by averaging all the samples collected at each sampling location for the past 12 months. The level of *[TTHM and/or HAA5]* averaged at one of our system's locations for *[provide date range]* was *[level]*. *[Field staff to briefly describe the violation, to include specifics such as dates, concentration levels, etc. to summarize situational correctness].*

**What should I do?**

- There is nothing you need to do. You do not need to boil your water or take other corrective actions. If a situation arises where the water is no longer safe to drink, you will be notified within 24 hours.
- If you have a severely compromised immune system, have an infant, are pregnant, or are elderly, you may be at increased risk and should seek advice from your health care providers about drinking this water.

**What does this mean?**

This is not an emergency. If it had been, you would have been notified within 24 hours.

TTHMs are four volatile organic chemicals. HAA5s are five haloacetic acid compounds which form when disinfectants react with natural organic matter in the water.

*\*People who drink water containing trihalomethanes in excess of the PMCL over many years may experience problems with their liver, kidneys, or central nervous system, and may have an increased risk of getting cancer.\* Or*

*\*People who drink water containing haloacetic acids in excess of the PMCL over many years may have an increased risk of getting cancer.\**

**What is being done?**

[Field staff to describe the corrective actions required by the waterworks owner and when the violation is expected to be resolved.]

For more information, please contact (name of contact) at (phone number) or (mailing address).

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by (system). State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: LRAA PMCL Exceedance for Disinfection Byproducts - TTHMs and/or HAA5s  
under Stage 2 Rule - (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
(Community Waterworks)

By direct (hand) delivery on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_  
\_\_\_\_\_

Provided to the following broadcast media (list: television/radio/website/social media) on

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ (method and date)

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address

**FM-C14-T2-Attachment 20.** Failure to Install Source Water Treatment (SoWT) under LCR.  
**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 2 TT NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

## NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Failure to Install Source Water Treatment (SoWT) under LCR

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-405 B of the Virginia *Waterworks Regulations* (“Regulations”) for failure to install source water treatment (SoWT) required under the Lead and Copper Rule (LCR). The Regulations characterize this alleged violation as a Tier 2 treatment technique violation.

Section 12VAC5-590-405 B states, in part, “The owner of a waterworks exceeding the lead or copper [Action Level] shall complete the applicable source water monitoring and treatment requirements....”

(Field staff may want to insert a narrative to further describe this violation situation in this NOAV. Narrative to include observations, sampling results, dates, times, etc. where appropriate.)

### **Required Actions**

In accordance with Section 12VAC5-590-540 of the Regulations, a Tier 2 violation requires you issue a Tier 2 Public Notice (“Notice”) to the consumers in the area served in accordance to the public notification requirements described below:

**Public Notice:** The Tier 2 Notice requires you to notify consumers in the area served **within 30 days** of learning of the violation. This Notice must be handled as follows:

- You must provide a Notice to consumers no later than *(date)*; (i.e., 30 days from date of letter or 30 days from when owner was apprised of the violation, whichever comes first.)
- Your Notice to consumers must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example) you must also use other delivery methods to provide notice to these consumers as well. Examples of other methods include (but are not limited to) notice publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the system.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved).*
- You must repeat distribution of the Notice every three months, for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved).*

**Draft Notice:** Attached is a draft Tier 2 Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at *(phone number)* or email at *(email address)*.

Sincerely,

Name & Title  
Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 2 Public Notice
2. Certification Form

cc: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director.  
Administrator/Manager, name of County, County

**NOTICE TO CONSUMERS  
of the (Name) WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Failure to Install Source Water Treatment (SoWT) under LCR**

Our water system recently violated a drinking water regulation for failure to install source water treatment (SoWT) required under the Lead and Copper Rule (LCR). Although this situation does not require that you take immediate action, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation. (Field staff may want to briefly describe the violation, to include specifics such as other observations, sample results, dates, times, etc. to summarize situational correctness).

**What should I do?**

- There is nothing you need to do. You do not need to boil your water or take other corrective actions. However, if you have specific health concerns, consult your doctor.
- If you have a severely compromised immune system, have an infant, are pregnant, or are elderly, you may be at increased risk and should seek advice from your healthcare providers about drinking this water.

**What does this mean?**

This is not an emergency. If it had been, you would have been notified within 24 hours.

**What is being done?**

(Field staff to describe the corrective actions required by the waterworks owner and when the violation is expected to be resolved.)

For more information, please contact (name of contact) at (phone number) or (mailing address).

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by (system). State Water System ID#: \_\_\_\_\_.  
Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Failure to Install Source Water Treatment (SoWT) under LCR - (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
(Community/Noncommunity Waterworks)

By direct (hand) delivery on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_

Provided to the following broadcast media (list: television/radio/website/social media) on

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ (method and date)

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address



**FM-C14-T2-Attachment 21.** Failure to Comply with Specified WQPs under LCR.

**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 2 NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

## NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner

Address 1

Address 2

City, State, Zip

Re: Failure to Comply with Specified Water Quality Parameters (WQPs) under LCR

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-405 A 1 g (*if applicable* and Section 12VAC5-590-375 C 4) of the Virginia *Waterworks Regulations* (“Regulations”) for failure to meet the specified water quality parameters (WQPs) for your waterworks that reflects optimal corrosion control treatment (OCCT) under the Lead and Copper Rule (LCR). The Regulations characterize this alleged violation as a Tier 2 treatment technique violation.

*(if applicable, retain this reference.)*

Section 12VAC5-590-375 C 4 states, in part, “After the [Virginia Department of Health] specifies the values for applicable water quality control parameters reflecting optimal corrosion control treatment..., the owner of a large waterworks shall measure the applicable water quality parameters...and determine compliance...every six months...after the [Virginia Department of Health] specifies the optimal values.... The owner of a small or a medium waterworks shall conduct monitoring during each six-month monitoring period...in which the waterworks exceeds the lead or copper [Action Level].... Compliance with the [Virginia Department of Health]-designated optimal water quality parameter values shall be determined as specified under 12VAC5-590-405 A 1 g.”

Section 12VAC5-590-405 A 1 g states, in part, “The owner of a waterworks optimizing corrosion control shall continue to operate and maintain optimal corrosion control treatment, including maintaining water quality parameters at or above minimum values or within ranges designated by the [Virginia Department of Health] under subdivision A 1 f of this section as verified by all samples collected under 12VAC5-590-375 C 4, 12VAC5-590-375 C 5, and 12VAC5-590-375 C 6.

Compliance with the requirements of this subdivision shall be determined every six months, as specified under 12VAC5-590-375 C 4. The waterworks is out of compliance with the requirements of this subdivision for a six-month period if excursions occur for any [Virginia Department of Health]-specified parameter on more than nine days during the period. An excursion occurs whenever the daily value for one or more of the water quality parameters measured at a sampling location is below the minimum value or outside the range designated by the [Virginia Department of Health].”

*(Field staff may want to insert a narrative to further describe this violation situation in this NOAV. Narrative to include observations, sampling results, dates, times, etc. where appropriate)*

### **Required Actions**

In accordance with Section 12VAC5-590-540 of the Regulations, a Tier 2 violation requires you issue a Tier 2 Public Notice (“Notice”) to the consumers in the area served in accordance to the public notification requirements described below:

**Public Notice:** The Tier 2 Notice requires you to notify consumers in the area served **within 30 days** of learning of the violation. This Notice must be handled as follows:

- You must provide a Notice to consumers no later than *(date)*; (i.e., 30 days from date of letter or 30 days from when owner was apprised of the violation, whichever comes first.)
- Your Notice to consumers must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example) you must also use other delivery methods to provide notice to these consumers as well. Examples of other methods include (but are not limited to) notice publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the system.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved)*.
- You must repeat distribution of the Notice every three months, for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved)*.

**Draft Notice:** Attached is a draft Tier 2 Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along

with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** (Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at (phone number) or email at (email address).

Sincerely,

Name & Title  
Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 2 Public Notice
2. Certification Form

ec or cc: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director. Administrator/Manager, name of County, County

**NOTICE TO CONSUMERS  
of the (Name) WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Failure to Comply with Specified Water Quality Parameters (WQPs) under LCR**

Our water system recently violated a drinking water regulation. Although this situation does not require that you take immediate action, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation. During (monitoring period), one or more of the specified water quality parameters (WQPs) for our waterworks reflecting optimal corrosion control treatment (OCCT) were exceeded. We failed to perform the additional monitoring, and therefore we cannot be sure of the quality of your drinking water during that time. (Field staff may want to briefly describe the violation, to include specifics such as observations, concentration values, dates, times, etc. to summarize situational correctness).

**What should I do?**

- There is nothing you need to do. You do not need to boil your water or take other corrective actions. However, if you have specific health concerns, consult your doctor.
- If you have a severely compromised immune system, have an infant, are pregnant, or are elderly, you may be at increased risk and should seek advice from your healthcare providers about drinking this water.

**What does this mean?**

This is not an emergency. If it had been, you would have been notified within 24 hours.

**What is being done?**

(Field staff to describe the corrective actions required by the waterworks owner and when the violation is expected to be resolved.)

For more information, please contact (name of contact) at (phone number) or (mailing address).

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by (system). State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Failure to Comply with Specified Water Quality Parameters (WQPs) under LCR - (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
*(Community/Noncommunity Waterworks)*

By direct (hand) delivery on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_

Provided to the following broadcast media (list: television/radio/website/social media) on

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ (method and date)

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address

**FM-C14-T2-Attachment 22. Inadequate Disinfection Byproduct Precursor Removal.**

**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 2 TT NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

**NOTICE OF ALLEGED VIOLATION**

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Inadequate Disinfection Byproduct Precursor Removal

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-411 A 1 b of the Virginia *Waterworks Regulations* (“Regulations”) for exceeding the total organic carbon (TOC) percentage removal during the (monitoring period). The Regulations characterize this alleged violation as a Tier 2 treatment technique violation.

Section 12VAC5-590-411 A 1 b states, in part, “A waterworks that uses a surface water source, a [groundwater under the direct influence of surface water] source, or both using conventional filtration treatment shall operate with enhanced coagulation or enhanced softening to achieve the [total organic carbon] percentage removal levels specified in...this section unless the waterworks meets at least one of the alternative compliance criteria listed in... this section.”

(Field staff may want to insert a narrative to further describe this violation situation in this NOAV. Narrative to include observations, sampling results, dates, times, etc. where appropriate)

**Required Actions**

In accordance with Section 12VAC5-590-540 of the Regulations, a Tier 2 violation requires you issue a Tier 2 Public Notice (“Notice”) to the consumers in the area served in accordance to the public notification requirements described below:

**Public Notice:** The Tier 2 Notice requires you to notify consumers in the area served **within 30 days** of learning of the violation. This Notice must be handled as follows:

- You must provide a Notice to consumers no later than *(date)*; (i.e., 30 days from date of letter or 30 days from when owner was apprised of the violation, whichever comes first.)
- Your Notice to consumers must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example) you must also use other delivery methods to provide notice to these consumers as well. Examples of other methods include (but are not limited to) notice publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the system.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved).*
- You must repeat distribution of the Notice every three months, for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved).*

**Draft Notice:** Attached is a draft Tier 2 Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at *(phone number)* or email at *(email address)*.

Sincerely,

Name & Title  
Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 2 Public Notice
2. Certification Form

ec or cc: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director.  
Administrator/Manager, name of County, County



**NOTICE TO CONSUMERS  
of the (Name) WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Inadequate Disinfection Byproduct Precursor Removal**

Our water system recently violated a drinking water regulation. Although this situation does not require that you take immediate action, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation. During the *(monitoring period)*, our waterworks exceeded the allowable total organic carbon (TOC) percentage removal limits. [Field staff may want to further describe the violation, to include additional specifics, such as other observations to summarize situational correctness.]

*\*Total organic carbon (TOC) has no health effects. However, total organic carbon provides a medium for the formation of disinfection byproducts. These byproducts include trihalomethanes (THMs) and haloacetic acids (HAAs). Drinking water containing these byproducts in excess of the PMCL may lead to adverse health effects, liver or kidney problems or nervous systems effects and may lead to an increased risk of getting cancer.\**

**What should I do?**

- There is nothing you need to do. You do not need to boil your water or take other corrective actions. However, if you have specific health concerns, consult your doctor.
- If you have a severely compromised immune system, have an infant, are pregnant, or are elderly, you may be at increased risk and should seek advice from your healthcare providers about drinking this water.

**What does this mean?**

This is not an emergency. If it had been, you would have been notified within 24 hours.

**What is being done?**

[Field staff to describe the corrective actions required by the waterworks owner and when the violation is expected to be resolved.]

For more information, please contact (name of contact) at (phone number) or (mailing address).

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by (system). State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Inadequate Disinfection Byproduct Precursor Removal - (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
(Community Waterworks)

By direct (hand) delivery on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_

Provided to the following broadcast media (list: television/radio/website/social media) on

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ (method and date)

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address

**FM-C14-T2-Attachment 23.** Failure to Provide a Qualified Operator at a Waterworks.

**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 2 TT NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

### NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Failure to Provide a Qualified Operator at a Waterworks

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-461 B 2 of the Virginia *Waterworks Regulations* (“Regulations”) for failing to provide a qualified operator at the waterworks. Our records indicate that you do not have an appropriately licensed operator in responsible charge of your waterworks. The Regulations characterize this alleged violation as a Tier 2 treatment technique violation.

Section 12VAC5-590-461 B 2 states, in part, “The operation of all waterworks must rest in the hands of qualified staff.... If a classified waterworks or water treatment plant is without a required operator, then the owner shall notify the [Virginia Department of Health] as soon as practical but no later than 24 hours of such an occurrence.... A classified waterworks shall be operated by an operator having a valid license issued by the Commonwealth of Virginia (18VAC160-30-90) with a classification equal to or higher than the classification of the waterworks or water treatment plant being operated.”

(Field staff may want to insert a narrative to further describe this violation situation that resulted in this NOAV. Narrative to include observations, sampling results, dates, times, etc. where appropriate.)

## **Required Actions**

In accordance with Section 12VAC5-590-540 of the Regulations, a Tier 2 violation requires you issue a Tier 2 Public Notice (“Notice”) to the consumers in the area served in accordance with the public notification requirements described below:

**Public Notice:** The Tier 2 Notice requires you to notify consumers in the area served **within 30 days** of learning of the violation. This Notice must be handled as follows:

- You must provide a Notice to consumers no later than *(date)*; (i.e., 30 days from date of letter or 30 days from when owner was apprised of the violation, whichever comes first.)
- Your Notice to consumers must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example) you must also use other delivery methods to provide notice to these consumers as well. Examples of other methods include (but are not limited to) notice publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the system.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved).*
- You must repeat distribution of the Notice every three months, for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved).*

**Draft Notice:** Attached is a draft Tier 2 Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action; e.g., Waterworks must obtain a licensed operator with a valid license, and provide this office with the name and license number of the licensed operator as it appears on the license. Failure to comply with this requirement may result in further enforcement action).*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at (phone number) or email at (email address).

Sincerely,

Name & Title  
Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 2 Public Notice
2. Certification Form

cc: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director. Administrator/Manager, name of County, County

**NOTICE TO CONSUMERS  
of the (Name) WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Failure to Provide a Qualified Operator at a Waterworks**

Our water system recently violated a drinking water regulation. Although this situation does not require that you take immediate action, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation. (Field staff to briefly describe the violation, to include specifics such as dates, operational history, etc. to summarize situational correctness).

**What should I do?**

- There is nothing you need to do. You do not need to boil your water or take other corrective actions. However, if you have specific health concerns, consult your doctor.
- If you have a severely compromised immune system, have an infant, are pregnant, or are elderly, you may be at increased risk and should seek advice from your healthcare providers about drinking this water.

**What does this mean?**

This is not an emergency. If it had been, you would have been notified within 24 hours.

**What is being done?**

(Field staff to describe the corrective actions required by the waterworks owner and when the violation is expected to be resolved.)

For more information, please contact (name of contact) at (phone number) or (mailing address).

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by (system). State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Failure to Provide a Qualified Operator at a Waterworks - (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
*(Community Waterworks)*

By direct (hand) delivery on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_  
\_\_\_\_\_

Provided to the following broadcast media *(list: television/radio/website/social media)* on

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ *(method and date)*

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
*Name* Field Office, Office of Drinking Water  
*Address*

**FM-C14-T2-Attachment 24.** Failure to Properly Recycle Backwash Flows under FBRR.

**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 2 TT NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

## NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Failure to Properly Recycle Backwash Flows under the Filter Backwash Recycle Rule (FBRR)

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-395 C 2 of the Virginia *Waterworks Regulations* (“Regulations”) for failing to properly recycle the backwash flows generated from your treatment plant operations under the Filter Backwash Recycle Rule (FBRR). The Regulations characterize this alleged violation as a Tier 2 treatment technique violation.

Section 12VAC5-590-395 C 2 states, in part, “...recycle flows shall be returned through all the processes of the treatment system or an alternative location approved by the [Virginia Department of Health].”

(Field staff may want to insert a narrative to further describe this violation situation that resulted in this NOAV. Narrative to include observations, sampling results, dates, times, etc. where appropriate.)

### **Required Actions**

In accordance with Section 12VAC5-590-540 of the Regulations, a Tier 2 violation requires you issue a Tier 2 Public Notice (“Notice”) to the consumers in the area served in accordance to the public notification requirements described below:



**Public Notice:** The Tier 2 Notice requires you to notify consumers in the area served **within 30 days** of learning of the violation. This Notice must be handled as follows:

- You must provide a Notice to consumers no later than *(date)*; (i.e., 30 days from date of letter or 30 days from when owner was apprised of the violation, whichever comes first.)
- Your Notice to consumers must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example) you must also use other delivery methods to provide notice to these consumers as well. Examples of other methods include (but are not limited to) notice publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the system.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved).*
- You must repeat distribution of the Notice every three months, for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved).*

**Draft Notice:** Attached is a draft Tier 2 Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at *(phone number)* or email at *(email address)*.

Sincerely,

Name & Title

Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 2 Public Notice
2. Certification Form

cc: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director.  
Administrator/Manager, name of County, County

**NOTICE TO CONSUMERS  
of the *(Name)* WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Failure to Properly Recycle Backwash Flows under the Filter Backwash Recycle Rule (FBRR)**

Our water system recently violated a drinking water requirement. Although this is not an emergency, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation.

The Filter Backwash Recycling Rule requires water systems that recycle liquids used for water treatment to recycle these liquids through the system's existing filtration system or to an alternate location approved by the state. Our system did not return its water treatment recycle flows to the required location or a state-approved location by the required date of *[give date]*. *(Field staff to briefly describe the violation, to include specifics such as observations, dates, concentration levels, etc. to summarize situational correctness).*

**What should I do?**

- There is nothing you need to do. You do not need to boil your water or take other corrective actions. However, if you have specific health concerns, consult your doctor.
- If you have a severely compromised immune system, have an infant, are pregnant, or are elderly, you may be at increased risk and should seek advice from your health care providers about drinking this water. General guidelines on ways to lessen the risk of infection by microbes are available from EPA's Safe Drinking Water Hotline at 1-800-426-4791.

**What does this mean?**

This is not an emergency. If it had been, you would have been notified within 24 hours.

*\*Inadequately treated water may contain disease-causing organisms. These organisms include bacteria, viruses, and parasites which can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.\**

These symptoms, however, are not caused only by organisms in drinking water, but also by other factors. If you experience any of these symptoms and they persist, you may want to seek medical advice.

**What is being done?**

*[Field staff to describe the corrective actions required by the waterworks owner and when the violation is expected to be resolved.]*

For more information, please contact *(name of contact)* at *(phone number)* or *(mailing address)*.

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by *(system)*. State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Failure to Properly Recycle Backwash Flows under the Filter Backwash Recycle Rule (FBRR) – (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
*(Community Waterworks)*

By direct (hand) delivery on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_

Provided to the following broadcast media (list: television/radio/website/social media) on

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ (method and date)

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address

**FM-C14-T2-Attachment 25.** Failure to Maintain Residual Disinfectant Concentration under Stage 2 D/DBP Rule.

**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 2 NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

### NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Failure to Maintain Residual Disinfectant Concentration under Stage 2 D/DBP Rule

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-384 C 1 a of the Virginia *Waterworks Regulations* (“Regulations”) for failing to maintain the residual disinfectant concentration under the Stage 2 Disinfectants/Disinfection Byproducts (D/DBP) Rule. For the (monitoring period), the averaged maximum residual disinfection level (MRDL) of the measurements was (#) mg/L, which exceeded the allowable MRDL of (#) mg/L (based on the disinfectant used). The Regulations characterize this alleged violation as a Tier 2 treatment technique violation.

Section 12VAC5-590-384 C 1 a states, in part, “Compliance shall be based on a running annual arithmetic average, computed quarterly, of monthly averages of all samples collected by the owner.... If the average covering any consecutive four-quarter period exceeds the MRDL... then the owner is in violation of the MRDL and shall notify the public..., in addition to reporting to the [Virginia Department of Health]....”

(Field staff may want to insert a narrative to further describe this violation situation in this NOAV. Narrative to include observations, sampling results, dates, times, etc. where appropriate.)

## **Required Actions**

In accordance with Section 12VAC5-590-540 of the Regulations, a Tier 2 violation requires you issue a Tier 2 Public Notice (“Notice”) to the consumers in the area served in accordance to the public notification requirements described below:

**Public Notice:** The Tier 2 Notice requires you to notify consumers in the area served **within 30 days** of learning of the violation. This Notice must be handled as follows:

- You must provide a Notice to consumers no later than *(date)*; (i.e., 30 days from date of letter or 30 days from when owner was apprised of the violation, whichever comes first.)
- Your Notice to consumers must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example) you must also use other delivery methods to provide notice to these consumers as well. Examples of other methods include (but are not limited to) notice publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the system.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved).*
- You must repeat distribution of the Notice every three months, for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved).*

**Draft Notice:** Attached is a draft Tier 2 Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil

charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at (phone number) or email at (email address).

Sincerely,

Name & Title  
Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 2 Public Notice
2. Certification Form

cc: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director. Administrator/Manager, name of County, County



**NOTICE TO CONSUMERS  
of the (Name) WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Failure to Maintain Residual Disinfectant Concentration under Stage 2 D/DBP Rule**

Our water system recently violated a drinking water standard for failing to maintain the residual disinfectant concentration under the Disinfectants/Disinfection Byproducts Rule. For the *(monitoring period)*, the averaged maximum residual disinfection level (MRDL) of the measurements was *(#)* mg/L, which exceeded the allowable MRDL of *(#)* mg/L *(based on the disinfectant used)*. Although this situation does not require that you take immediate action, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation. *(Field staff may want to further describe the violation, to include additional specifics, such as other observations to summarize situational correctness).*

**What should I do?**

- There is nothing you need to do. You do not need to boil your water or take other corrective actions. However, if you have specific health concerns, consult your doctor.
- If you have a severely compromised immune system, have an infant, are pregnant, or are elderly, you may be at increased risk and should seek advice from your healthcare providers about drinking this water.

**What does this mean?**

This is not an emergency. If it had been, you would have been notified within 24 hours.

**What is being done?**

*[Field staff to describe the corrective actions required by the waterworks owner and when the violation is expected to be resolved.]*

For more information, please contact *(name of contact)* at *(phone number)* or *(mailing address)*.

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by *(system)*. State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIO-: Failure to Maintain Residual Disinfectant Concentration under Stage 2 D/DBP Rule -  
(tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
*(Community Waterworks)*

By direct (hand) delivery on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_

Provided to the following broadcast media *(list: television/radio/website/social media)* on

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ *(method and date)*

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
*Name* Field Office, Office of Drinking Water  
*Address*

**FM-C14-T2-Attachment 26.** Failure to Complete an Approved Seasonal Waterworks Start-Up Procedure under RTCR.

**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 2 TT NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

### NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Failure to Complete an Approved Seasonal Waterworks Start-Up Procedure under RTCR

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-370 A 12 a of the Virginia *Waterworks Regulations* (“Regulations”) for failing to complete an approved seasonal waterworks start-up procedure under the Revised Total Coliform Rule (RTCR) before serving water to the public. The Regulations characterize this alleged violation as a Tier 2 treatment technique violation.

Section 12VAC5-590-370 A 12 a states, “A seasonal waterworks shall demonstrate completion of an approved start-up procedure that may include start-up sampling before serving water.”

(Field staff may want to insert a narrative to further describe this violation situation that resulted in this NOAV. Narrative to include observations, sampling results, dates, times, etc. where appropriate, e.g., choose from options below)

(Option 1)

According to our records, your waterworks is a seasonal waterworks and the approved seasonal start-up procedures were not completed before serving water to the public for the year operating season. A seasonal start-up procedure certification form has not been submitted to this Office.

(Option 2)

According to our records, your waterworks is a seasonal waterworks and the approved seasonal start-up procedures were not completed before serving water to the public for the year operating season.

The seasonal start-up procedure certification form, received on *(date)*, does not indicate that all required procedures were completed. Specifically, *(list the missing action(s).)*

### **Required Actions**

In accordance with Section 12VAC5-590-540 of the Regulations, a Tier 2 violation requires you issue a Tier 2 Public Notice (“Notice”) to the consumers in the area served in accordance to the public notification requirements described below:

**Public Notice:** The Tier 2 Notice requires you to notify consumers in the area served **within 30 days** of learning of the violation. This Notice must be handled as follows:

- You must provide a Notice to consumers no later than *(date)*; (i.e., 30 days from date of letter or 30 days from when owner was apprised of the violation, whichever comes first.)
- Your Notice to consumers must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example) you must also use other delivery methods to provide notice to these consumers as well. Examples of other methods include (but are not limited to) notice publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the system.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved).*
- You must repeat distribution of the Notice every three months, for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved).*

**Draft Notice:** Attached is a draft Tier 2 Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at (phone number) or email at (email address).

Sincerely,

Name & Title  
Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 2 Public Notice
2. Certification Form

ec: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director. Administrator/Manager, name of County, County

**NOTICE TO CONSUMERS  
of the (Name) WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Failure to Complete an Approved Seasonal Waterworks Start-Up Procedure under RTCR**

Our water system recently violated a drinking water regulation. Although this situation does not require that you take immediate action, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation. Our waterworks is required to complete an approved start-up procedure before serving water to the public. We failed to complete this requirement. (Field staff to briefly describe the violation, to include specifics such as observations, dates, concentration levels, etc. to summarize situational correctness).

**What should I do?**

- There is nothing you need to do. You do not need to boil your water or take other corrective actions. However, if you have specific health concerns, consult your doctor.
- If you have a severely compromised immune system, have an infant, are pregnant, or are elderly, you may be at increased risk and should seek advice from your healthcare providers about drinking this water.

**What does this mean?**

This is not an emergency. If it had been, you would have been notified within 24 hours.

**What is being done?**

(Field staff to describe the corrective actions required by the waterworks owner and when the violation is expected to be resolved.)

For more information, please contact (name of contact) at (phone number) or (mailing address).

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by (system). State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Failure to Complete an Approved Seasonal Waterworks Start-Up Procedure under RTCR - (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
*(Noncommunity Waterworks)*

Posted on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_  
\_\_\_\_\_

Other approved method \_\_\_\_\_ *(method and date)*

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address

**FM-C14-T2-Attachment 27.** Failure to Complete a Level 1 Assessment under RTCR.

**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 2 TT NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

## NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Failure to Complete a Level 1 Assessment under the Revised Total Coliform Rule (RTCR)

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-392 F of the Virginia *Waterworks Regulations* (“Regulations”) for failing to complete a Level 1 Assessment following determination of exceedance of the treatment technique trigger under the Revised Total Coliform Rule (RTCR). The Regulations characterize this alleged violation as a Tier 2 treatment technique violation.

Section 12VAC5-590-392 F states, in part, “Failure to conduct the required assessment or corrective actions...after exceeding a treatment technique trigger...is a treatment technique violation. The owner shall provide public notification as required under Tier 2 conditions....”

(Field staff may want to insert a narrative to further describe this violation situation in this NOAV. Narrative to include observations, sampling results, dates, times, etc. where appropriate. Two situations: (i) Multiple TC+; (ii) TC+ with no repeat. As part of the historical narrative, field staff may add a citation to the regulatory standard that was violated that led to the need to conduct an assessment.)

### **Required Actions**

In accordance with Section 12VAC5-590-540 of the Regulations, a Tier 2 violation requires you issue a Tier 2 Public Notice (“Notice”) to the consumers in the area served in accordance to the public notification requirements described below:



**Public Notice:** The Tier 2 Notice requires you to notify consumers in the area served **within 30 days** of learning of the violation. This Notice must be handled as follows:

- You must provide a Notice to consumers no later than *(date)*; (i.e., 30 days from date of letter or 30 days from when owner was apprised of the violation, whichever comes first.)
- Your Notice to consumers must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example) you must also use other delivery methods to provide notice to these consumers as well. Examples of other methods include (but are not limited to) notice publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the system.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved).*
- You must repeat distribution of the Notice every three months, for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved).*

**Draft Notice:** Attached is a draft Tier 2 Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at *(phone number)* or email at *(email address)*.

Sincerely,

Name & Title  
Field office name

ABC.xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 2 Public Notice
2. Certification Form

cc: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director.  
Administrator/Manager, name of County, County

**NOTICE TO CONSUMERS  
of the (Name) WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Failure to Complete a Level 1 Assessment under the Revised Total Coliform Rule (RTCR)**

Our water system recently violated a drinking water regulation. Although this situation does not require that you take immediate action, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation. During the *(monitoring period)*, our waterworks experienced *(Choose from two situations: (i) Multiple TC+; (ii) TC+ with no repeat; insert # of positive bacteriological sample results)*. This caused the exceedance of the Level 1 treatment technique trigger, which therefore required the completion of a Level 1 Assessment. Our waterworks failed to complete this assessment, and therefore we cannot be sure as to the quality of your drinking water during that time. *(Field staff may want to briefly describe the violation, to include specifics such as observations, dates, concentration levels, etc. to summarize the situational correctness)*.

*\*Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially-harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the waterworks.\**

**What should I do?**

- There is nothing you need to do. You do not need to boil your water or take other corrective actions. However, if you have specific health concerns, consult your doctor.
- If you have a severely compromised immune system, have an infant, are pregnant, or are elderly, you may be at increased risk and should seek advice from your healthcare providers about drinking this water.

General guidelines on ways to lessen the risk of infection by microbes are available from EPA's Safe Drinking Water Hotline at 1-800-426-4791.

**What does this mean?**

This is not an emergency. If it had been, you would have been notified within 24 hours.

**What is being done?**

*(Field staff to describe the corrective actions required by the waterworks owner and when the violation is expected to be resolved.)*

For more information, please contact *(name of contact)* at *(phone number)* or *(mailing address)*.

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by *(system)*. State Water System ID#: \_\_\_\_\_.  
Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Failure to Complete a Level 1 Assessment under the Revised Total Coliform Rule (RTCR) - (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
*(Community/Noncommunity Waterworks)*

By direct (hand) delivery on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_

Provided to the following broadcast media *(list: television/radio/website/social media)* on

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ *(method and date)*

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
*Name* Field Office, Office of Drinking Water  
*Address*

**FM-C14-T2-Attachment 28.** Failure to Acknowledge Completion of a Level 2 Assessment under RTCR.

**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 2 TT NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

### NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Failure to Acknowledge Completion of a Level 2 Assessment under the Revised Total Coliform Rule (RTCR)

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-392 F of the Virginia *Waterworks Regulations* (“Regulations”) for failing to complete a Level 2 Assessment following a Level 2 treatment technique trigger under the Revised Total Coliform Rule (RTCR). The Regulations characterize this alleged violation as a Tier 2 treatment technique violation.

Section 12VAC5-590-392 F states, in part, “Failure to conduct the required assessment or corrective actions...after exceeding a treatment technique trigger...is a treatment technique violation. The owner shall provide public notification as required under Tier 2 conditions....”

(Field staff may want to insert a narrative to further describe this violation situation in this NOAV. Narrative to include observations, sampling results, dates, times, etc. where appropriate. As part of the historical narrative, field staff may add a citation to the regulatory standard that was violated that led to the need for an assessment)

#### **Required Actions**

In accordance with Section 12VAC5-590-540 of the Regulations, a Tier 2 violation requires you issue a Tier 2 Public Notice (“Notice”) to the consumers in the area served in accordance to the public notification requirements described below:

**Public Notice:** The Tier 2 Notice requires you to notify consumers in the area served **within 30 days** of learning of the violation. This Notice must be handled as follows:

- You must provide a Notice to consumers no later than *(date)*; (i.e., 30 days from date of letter or 30 days from when owner was apprised of the violation, whichever comes first.)
- Your Notice to consumers must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example) you must also use other delivery methods to provide notice to these consumers as well. Examples of other methods include (but are not limited to) notice publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the system.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved).*
- You must repeat distribution of the Notice every three months, for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved).*

**Draft Notice:** Attached is a draft Tier 2 Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at *(phone number)* or email at *(email address)*.

Sincerely,

Name & Title  
Field office name

ABC.xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 2 Public Notice
2. Certification Form

cc : Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director.  
Administrator/Manager, name of County, County



**NOTICE TO CONSUMERS  
of the (Name) WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Failure to Acknowledge Completion of a Level 2 Assessment under the Revised Total Coliform Rule (RTCR)**

Our water system recently violated a drinking water regulation. Although this situation does not require that you take immediate action, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation. During the *(monitoring period)*, our waterworks experienced an *E. coli* Primary Maximum Contaminant Level (PMCL) exceedance along with other positive coliform bacteriological sample results. This caused the exceedance of the Level 2 treatment technique trigger, which therefore required the completion of a Level 2 Assessment. Despite assistance from the ODW field staff, our waterworks failed to complete this assessment, and therefore we cannot be sure as to the quality of your drinking water during that time. *(Field staff may want to briefly describe the violation, to include specifics such as observations, dates, concentration levels, etc. to summarize the situational correctness).*

*\*E. coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Human pathogens in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a greater health risk for infants, young children, the elderly, and people with severely-compromised immune systems.\**

*\*Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially-harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the waterworks.\**

**What should I do?**

- There is nothing you need to do. You do not need to boil your water or take other corrective actions. However, if you have specific health concerns, consult your doctor.
- If you have a severely compromised immune system, have an infant, are pregnant, or are elderly, you may be at increased risk and should seek advice from your healthcare providers about drinking this water.

General guidelines on ways to lessen the risk of infection by microbes are available from EPA's Safe Drinking Water Hotline at 1-800-426-4791.

**What does this mean?**

This is not an emergency. If it had been, you would have been notified within 24 hours.

**What is being done?**

(Field staff to describe the corrective actions required by the waterworks owner and when the violation is expected to be resolved.)

For more information, please contact (name of contact) at (phone number) or (mailing address).

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by (system). State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Failure to Acknowledge Completion of a Level 2 Assessment under the Revised Total Coliform Rule (RTCR) - (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
*(Community/Noncommunity Waterworks)*

By direct (hand) delivery on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_

Provided to the following broadcast media *(list: television/radio/website/social media)* on

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ *(method and date)*

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address

**FM-C14-T2-Attachment 29.** Failure to Implement the Lead Service Line Replacement Program under LCR.

**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 2 TT NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

### NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Failure to Implement the Lead Service Line Replacement Program under LCR

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-405 C 1 of the Virginia *Waterworks Regulations* (“Regulations”) for failing to implement the lead service line replacement program under the Lead and Copper Rule (LCR). The Regulations characterize this alleged violation as a Tier 2 treatment technique violation.

Section 12VAC5-590-405 C 1 states, in part, “The owner of a waterworks that fails to meet the lead [Action Level] in tap samples collected...after installing corrosion control or source water treatment (whichever sampling occurs later), shall replace lead service lines.... If the owner is in violation... for failure to install source water or corrosion control treatment, then the [Virginia Department of Health] may require the owner to commence lead service line replacement...after the date by which the owner was required to conduct monitoring...has passed.”

(Field staff may want to insert a narrative to further describe this violation situation that resulted in this NOAV. Narrative to include observations, sampling results, dates, times, etc. where appropriate.)

#### **Required Actions**

In accordance with Section 12VAC5-590-540 of the Regulations, a Tier 2 violation requires you issue a Tier 2 Public Notice (“Notice”) to the consumers in the area served in accordance to the public notification requirements described below:

**Public Notice:** The Tier 2 Notice requires you to notify consumers in the area served **within 30 days** of learning of the violation. This Notice must be handled as follows:

- You must provide a Notice to consumers no later than *(date)*; (i.e., 30 days from date of letter or 30 days from when owner was apprised of the violation, whichever comes first.)
- Your Notice to consumers must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example) you must also use other delivery methods to provide notice to these consumers as well. Examples of other methods include (but are not limited to) notice publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the system.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved).*
- You must repeat distribution of the Notice every three months, for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved).*

**Draft Notice:** Attached is a draft Tier 2 Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at *(phone number)* or email at *(email address)*.

Sincerely,

Name & Title

Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 2 Public Notice
2. Certification Form

cc: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director.  
Administrator/Manager, name of County, County

**NOTICE TO CONSUMERS  
of the *(Name)* WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Failure to Implement the Lead Service Line Replacement Program. under LCR**

Our water system recently violated a drinking water regulation. Although this situation does not require that you take immediate action, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation. Our waterworks failed to implement the lead service line replacement program under the Lead and Copper Rule (LCR). *(Field staff may want to briefly describe the violation, to include specifics such as observations, dates, concentration levels, etc. to summarize situational correctness).*

**What should I do?**

- There is nothing you need to do. You do not need to boil your water or take other corrective actions. However, if you have specific health concerns, consult your doctor.
- If you have a severely compromised immune system, have an infant, are pregnant, or are elderly, you may be at increased risk and should seek advice from your healthcare providers about drinking this water.

**What does this mean?**

This is not an emergency. If it had been, you would have been notified within 24 hours.

**What is being done?**

*(Field staff to describe the corrective actions required by the waterworks owner and when the violation is expected to be resolved.)*

For more information, please contact *(name of contact)* at *(phone number)* or *(mailing address)*.

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by *(system)*. State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

**VIOLATION:** Failure to Implement the Lead Service Line Replacement Program under LCR - (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
*(Community Waterworks)*

By direct (hand) delivery on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_

Provided to the following broadcast media *(list: television/radio/website/social media)* on

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ *(method and date)*

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
*Name* Field Office, Office of Drinking Water  
*Address*



**FM-C14-T2-Attachment 30.** Elevation of Public Notification from Tier 3 to Tier 2.

**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 2 NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

## NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Elevation of Public Notification from Tier 3 to Tier 2

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-540 A 4 of the Virginia *Waterworks Regulations* (“Regulations”) whereupon it has been determined that the public notification requirements of numerous previous Tier 3 violations or situations are not being accomplished by the waterworks. Consumers are therefore not being adequately informed about drinking water operations at this waterworks. Consequently, it is necessary to elevate the Tier 3 public notification requirements to Tier 2 public notification in order to protect the public health. The Regulations characterize this alleged violation as a Tier 2 violation.

Section 12VAC5-590-540 A 4 states, in part, “The [Virginia Department of Health]...may require a higher tier of public notice for specific violations and situations.... The content and extent of distribution of these public notices shall be determined by the [Virginia Department of Health].”

(Field staff may want to insert a narrative to further describe this violation situation in this NOAV. Narrative to include observations, sampling results, dates, times, etc. where appropriate.)

### **Required Actions**

In accordance with Section 12VAC5-590-540 of the Regulations, a Tier 2 violation requires you issue a Tier 2 Public Notice (“Notice”) to the consumers in the area served in accordance to the public notification requirements described below:

**Public Notice:** The Tier 2 Notice requires you to notify consumers in the area served **within 30 days** of learning of the violation. This Notice must be handled as follows:

- You must provide a Notice to consumers no later than *date*; (i.e., 30 days from date of letter or 30 days from when owner was apprised of the violation, whichever comes first.)
- Your Notice to consumers must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example) you must also use other delivery methods to provide notice to these consumers as well. Examples of other methods include (but are not limited to) notice publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the system.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved).*
- You must repeat distribution of the Notice every three months, for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved).*

**Draft Notice:** Attached is a draft Tier 2 Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *date*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at *(phone number)* or email at *(email address)*.

Sincerely,

Name & Title  
Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 2 Public Notice
2. Certification Form

cc: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director.  
Administrator/Manager, name of County, County

**NOTICE TO CONSUMERS  
of the Name WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Elevation of Public Notification from Tier 3 to Tier 2**

Our water system recently violated a drinking water requirement. Although this incident was not an emergency, as our customers, you have a right to know what happened and what we did (are doing) to correct this situation.

*\*We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During [compliance period], we ['did not monitor or test' or 'did not complete all monitoring or testing'] for [specify contaminant(s)] and, therefore, cannot be sure of the quality of your drinking water during that time.\**

Consequently, the Virginia Department of Health has determined that it is necessary to elevate the Tier 3 public notification requirements to Tier 2 public notification in order to inform consumers and protect the public health. (Field staff may want to provide additional details that led to this determination and NOAV. Use this NOAV on a case-by-case basis along with the Field Director's concurrence.)

**What should I do? What does this mean?**

There is nothing you need to do at this time.

The table below lists the contaminant(s) we did not properly test for, how often we are supposed to sample for [this contaminant/these contaminants] and how many samples we are supposed to take, how many samples we took, when samples should have been taken, and the date on which follow-up samples were (or will be) taken.

Contaminant	Required sampling frequency	Number of samples taken	When samples should have been taken	When samples were taken
Nitrate (example)	One sample annually	0	2008	February 2009

**What is being done?**

(Field staff to describe the corrective actions required by the waterworks owner and when the system expects to return to compliance.)

For more information, please contact (name of contact) at (phone number) or (mailing address).

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing*

*copies by hand or mail.\**

This notice is being sent to you by (system). State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Elevation of Public Notification from Tier 3 to Tier 2 - (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
*(Community/Noncommunity Waterworks)*

By direct (hand) delivery on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_

Provided to the following broadcast media *(list: television/radio/website/social media)* on

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ *(method and date)*

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address

**FM-C14-T2-Attachment 31.** Failure to Conduct Required Cryptosporidium Monitoring.

**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 2 NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

**NOTICE OF ALLEGED VIOLATION**

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner

Address 1

Address 2

City, State, Zip

Re: Failure to Conduct Required Cryptosporidium Monitoring

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-401 B of the Virginia *Waterworks Regulations* (“Regulations”) for failing to complete the required monitoring for Cryptosporidium during the (compliance period) under the LT2 Rule. The Regulations characterize this alleged violation as a Tier 3 monitoring violation.

Section 12VAC5-590-401 B states, in part, “The owner shall conduct an initial and a second round of source water monitoring for each water treatment plant that treats a surface water source, a [groundwater under the direct influence of surface water] source, or both. This monitoring may include sampling for Cryptosporidium, *E. coli*, and turbidity to determine what level, if any, of additional Cryptosporidium treatment is required.”

Section 12VAC5-590-401 B 12 states, “Failure to collect any source water sample required under this section in accordance with the sampling schedule, sampling location, analytical method, approved laboratory, and reporting requirements of subdivisions B 5 through B 9 of this section is a monitoring violation.”

(If the violation is to the requirements in B 5 through B 9, field staff are to insert the citation for the regulation that was violated here.)

(Field staff may want to insert a narrative to further describe this violation situation that resulted in this NOAV, to include specifics such as observations, concentration levels, dates, times, etc. where appropriate).

## **Required Actions**

In accordance with Section 12VAC5-590-540 of the Regulations, you are required to issue a Tier 3 public notice (“Notice”) to the consumers in the area served by the waterworks in accordance with the public notification requirements described below:

**Public Notice:** The Notice requires you to notify consumers in the area served **within 12 months** of learning of the violation. This Notice must be handled as follows:

- You must distribute the Notice no later than *(date)*.
- The Notice must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example), you must also use other delivery methods to provide the Notice to these consumers as well. Examples of other methods include, but are not limited to, publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the waterworks.
- You may choose to include the Notice as an enclosure with or as an integral part of your Consumer Confidence Report (CCR) for *(year)* water quality data. To do so, the combined CCR and public Notice must be distributed to consumers by July 1, *(year)*, AND you must take steps to ensure that the CCR and public Notice reach all persons served by the waterworks. This requirement is more stringent than the “good faith effort” requirements for distributing the CCR alone.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved.)*
- You must repeat distribution of the Notice annually for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved.)*

**Draft Notice:** Attached is a draft Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)*



**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at (phone number) or email at (email address).

Sincerely,

Name & Title  
Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 3 Public Notice
2. Certification Form

ec: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director. Administrator/Manager, name of County, County

**NOTICE TO CONSUMERS  
of the Name WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Failure to Conduct Required Cryptosporidium Monitoring**

Our water system recently violated a drinking water requirement. Although this is not an emergency, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation.

*\*We are required to monitor the source of your drinking water for Cryptosporidium. Results of the monitoring are to be used to determine whether water treatment at the [treatment plant name] is sufficient to adequately remove Cryptosporidium from your drinking water. We are required to complete this monitoring and make this determination by [required bin determination date]. We ['did not monitor or test' or 'did not complete all monitoring or testing'] on schedule and, therefore, we may not be able to determine by the required date what treatment modifications, if any, must be made to ensure adequate Cryptosporidium removal. Missing this deadline may, in turn, jeopardize our ability to have the required treatment modifications, if any, completed by the deadline required, [give date].\**

Cryptosporidium is a disease-causing microorganism that may be present in our raw water source. [Field staff may want to further describe the violation, to include additional specifics, such as other observations to summarize situational correctness].

**What should I do?**

- There is nothing you need to do. You do not need to boil your water or take other corrective actions. However, if you have specific health concerns, consult your doctor.
- If you have a severely compromised immune system, have an infant, are pregnant, or are elderly, you may be at increased risk and should seek advice from your health care providers about drinking this water. General guidelines on ways to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from EPA's Safe Drinking Water Hotline at 1-800-426-4791.

**What does this mean?**

This is not an emergency. If it had been, you would have been notified within 24 hours.

**What is being done?**

(Field staff to describe the corrective action(s) required by the waterworks owner and when the violation is expected to be resolved.)

For more information, please contact (name of contact) at (phone number) or (mailing address).

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by (system). State Water System ID#: \_\_\_\_\_.  
Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Failure to Conduct Required Cryptosporidium Monitoring for Any Three Months under LT2 Rule-(tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
*(Community Waterworks)*

By direct (hand) delivery on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_

Provided to the following broadcast media *(list: television/radio/website/social media)* on

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ *(method and date)*

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
*Name* Field Office, Office of Drinking Water  
*Address*

**FM-C14-T2-Attachment 32.** Failure to Address Significant Deficiencies by a Noncommunity Waterworks.

**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 2 NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

### NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Failure to Address Significant Deficiencies by a Noncommunity Waterworks

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-421 A (*if applicable, cite to 12VAC5-590-540 K 1 – see below*) of the Virginia *Waterworks Regulations* (“Regulations”) for failing to correct significant deficiencies after being notified by the Virginia Department of Health. The Regulations characterize this alleged violation as a Tier 2 treatment technique violation.

*(Retain the following paragraph if applicable. If not applicable, then 540 K 1 is applicable, and this situation is not a violation and a Tier 2 PN is required.)*

Section 12VAC5-590-421 A states, “The owner of a groundwater system that (i) has a confirmed *E. coli* contamination as described in 12VAC5-590-379 B or (ii) has been notified in writing of a significant deficiency as described in 12VAC5-590-350 D shall meet the requirements of this section. Failure to meet any requirement of this section after the applicable time period specified is a treatment technique violation.”

*(Retain the following paragraph if applicable.)*

Section 12VAC5-590-540 K 1 states, “An owner of a noncommunity groundwater system that has not corrected a significant deficiency within one year of being notified by the [Virginia Department of Health] shall provide public notice to the consumers.”

(Field staff may want to insert a narrative to further describe this violation situation that resulted in this NOAV, to include specifics such as observations, concentration levels, dates, times, etc. where appropriate).

## **Required Actions**

In accordance with Section 12VAC5-590-540 K of the Regulations, you are required to issue a Public Notice to the consumers in the area served in accordance to the public notification requirements described below:

**Public Notice:** This Notice requires you to notify consumers in the area served **within 30 days** of learning of the violation. This Notice must be handled as follows:

- You must provide a Notice to consumers no later than (date); (i.e., 30 days from date of letter or 30 days from when owner was apprised of the violation, whichever comes first.)
- Your Notice to consumers must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (e.g., apartment dwellers, university students, or nursing home patients) you must also use other delivery methods to provide notice to these consumers as well. Examples of other methods include (but are not limited to) notice publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the system.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. (This requirement may be deleted if the violation has already been resolved).
- You must repeat distribution of the Notice every three months, for as long as the violation persists. (This requirement may be deleted if the violation has already been resolved).
- The owner shall continue to notify the public annually until the requirements of 12VAC5-590-421 have been satisfied. The notice shall include:
  - The nature of the significant deficiency and the date it was identified by the department; and
  - The department approved plan and schedule for correcting the significant deficiency including interim measures, progress to date, and which of the interim measures have been completed.
- For a noncommunity groundwater system with a large proportion of non-English-speaking consumers, the notice shall contain information in the appropriate languages regarding the importance of the Notice or contain a telephone number or address where the consumers may contact the owner to obtain a translated copy of the notice or assistance with the appropriate language.
- If directed by the department, the owner of a noncommunity groundwater system with significant deficiencies that have been corrected shall inform the consumers of the significant deficiencies, how the deficiencies were corrected, and the date of correction.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *date*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at *(phone number)* or email at *(email address)*.

Sincerely,

*Name & Title*  
*Field office name*

*ABC:xyz*

Enclosures: *(If applicable, insert any other relevant information)*

1. Draft Notice
2. Certification Form

*ec or cc: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director. Administrator/Manager, name of County, County*

**NOTICE TO CONSUMERS  
of the (Name) WATERWORKS**

**Failure to Address Significant Deficiencies of a Noncommunity Waterworks**

Our water system recently violated a drinking water requirement. Although this incident was not an emergency, as our customers, you have a right to know what happened and what we did (are doing) to correct this situation. [A routine inspection conducted on [give date] by this Virginia Department of Health, (Field Office) [insert primacy agency] found [describe significant deficiency in our water system]] OR [Sampling conducted at our groundwater source on [given date(s)] found indication of fecal contamination of our source(s)]. We were required to take action to correct these deficiencies. However, we failed to take this action by the deadline established by this Office. (Field staff may want to briefly describe the violation, to include specifics, such as other observations, to summarize situational correctness).

**What should I do?**

- There is nothing you need to do. You do not need to boil your water or take other corrective actions. However, if you have specific health concerns, consult your doctor.
- If you have a severely compromised immune system, have an infant, are pregnant, or are elderly, you may be at increased risk and should seek advice from your healthcare providers about drinking this water.

**What does this mean?**

This is not an emergency. If it had been, you would have been notified within 24 hours.

**What is being done?**

(Field staff to describe the corrective actions required by the waterworks owner and when the violation is expected to be resolved; e.g., We anticipate resolving the problem within [estimated time frame] [or the problem was resolved on [give date]].

For more information, please contact (name of contact) at (phone number) or (mailing address).

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by (system). State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.



SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Failure to Address Significant Deficiencies by a Noncommunity Waterworks -  
(tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
*(Noncommunity Waterworks)*

By direct (hand) delivery on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_  
\_\_\_\_\_

Other approved method \_\_\_\_\_ *(method and date)*

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address

**FM-C14-T3-Attachment 1.** Minor Monitoring Filtration Failure/No Report under SWTR.

**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 3 NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

## NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner

Address 1

Address 2

City, State, Zip

Re: Minor Monitoring Filtration Failure/No Report under SWTR

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-376 B of the Virginia *Waterworks Regulations* (“Regulations”) for failing to complete all of the required turbidity monitoring at the filters under the Surface Water Treatment Rule (SWTR). The Regulations characterize this alleged violation as a Tier 3 violation.

Section 12VAC5-590-376 B states, in part, “Turbidity measurements shall be performed on representative samples of the filtered water every four hours (or more frequently) that the waterworks serves water to the public. The owner may substitute continuous turbidity monitoring for grab sample monitoring if the owner validates the continuous measurement for accuracy on a regular basis using a protocol approved by the [Virginia Department of Health]. For a waterworks using slow sand filtration or filtration treatment other than conventional treatment, direct filtration, or diatomaceous earth filtration, the [Virginia Department of Health] may reduce the sampling frequency to once per day if the [Virginia Department of Health] determines that less frequent monitoring is sufficient to indicate effective filtration performance. For a waterworks serving 500 or fewer persons, the [Virginia Department of Health] may reduce the turbidity sampling frequency to once per day, regardless of the type of filtration treatment used, if the [Virginia Department of Health] determines that less frequent monitoring is sufficient to indicate effective filtration performance.”

(Field staff may want to insert a narrative to further describe this violation situation in this NOAV. Narrative to include observations, sampling results, dates, times, etc. where appropriate)

## **Required Actions**

In accordance with Section 12VAC5-590-540 of the Regulations, you are required to issue a Tier 3 public notice (“Notice”) to the consumers in the area served by the waterworks in accordance with the public notification requirements described below:

**Public Notice:** The Notice requires you to notify consumers in the area served **within 12 months** of learning of the violation. This Notice must be handled as follows:

- You must distribute the Notice no later than *(date)*.
- The Notice must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example), you must also use other delivery methods to provide the Notice to these consumers as well. Examples of other methods include, but are not limited to, publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the waterworks.
- You may choose to include the Notice as an enclosure with or as an integral part of your Consumer Confidence Report (CCR) for *(year)* water quality data. To do so, the combined CCR and public Notice must be distributed to consumers by July 1, *(year)*, AND you must take steps to ensure that the CCR and public Notice reach all persons served by the waterworks. This requirement is more stringent than the “good faith effort” requirements for distributing the CCR alone.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved.)*
- You must repeat distribution of the Notice annually for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved.)*

**Draft Notice:** Attached is a draft Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at (phone number) or email at (email address).

Sincerely,

Name & Title  
Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 3 Public Notice
2. Certification Form

ec: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director. Administrator/Manager, name of County, County

**NOTICE TO CONSUMERS  
of the Name WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Minor Monitoring Filtration Failure/No Report under SWTR**

Our water system recently violated a drinking water regulation. Although this situation does not require that you take immediate action, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation. During the *(monitoring period, our waterworks failed to accomplish all of its turbidity monitoring requirements and/or report filtration performance under the Surface Water Treatment Rule (SWTR))*, and therefore we cannot be sure of the quality of your drinking water during that time. *(Field staff may want to elaborate and include additional clarifying details).*

*\*Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.\**

**What should I do?**

There is nothing you need to do at this time. You may continue to drink the water. If a situation arises where the water is no longer safe to drink, you will be notified within 24 hours.

**What is being done?**

*(Field staff to describe the corrective action(s) required by the waterworks owner and when the violation is expected to be resolved.)*

For more information, please contact *(name of contact)* at *(phone number)* or *(mailing address)*.

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by *(system)*. State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Minor Monitoring Filtration Failure/No Report under SWTR - (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
*(Community Waterworks)*

By direct (hand) delivery on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_

\_\_\_\_\_

Provided to the following broadcast media (list: television/radio/website/social media) on

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ (method and date)

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address

**FM-C14-T3-Attachment 2.** Major Monitoring Filtration Failure/No Report under SWTR.

**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 3 NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined, and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

### NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner

Address 1

Address 2

City, State, Zip

Re: Major Monitoring Filtration Failure/No Report under SWTR

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-376 B of the Virginia *Waterworks Regulations* (“Regulations”) for failing to complete any of the required turbidity monitoring at the filters under the Surface Water Treatment Rule (SWTR). The Regulations characterize this alleged violation as a Tier 3 violation.

Section 12VAC5-590-376 B states, in part, “Turbidity measurements shall be performed on representative samples of the filtered water every four hours (or more frequently) that the waterworks serves water to the public. The owner may substitute continuous turbidity monitoring for grab sample monitoring if the owner validates the continuous measurement for accuracy on a regular basis using a protocol approved by the [Virginia Department of Health]. For a waterworks using slow sand filtration or filtration treatment other than conventional treatment, direct filtration, or diatomaceous earth filtration, the [Virginia Department of Health] may reduce the sampling frequency to once per day if the [Virginia Department of Health] determines that less frequent monitoring is sufficient to indicate effective filtration performance. For a waterworks serving 500 or fewer persons, the [Virginia Department of Health] may reduce the turbidity sampling frequency to once per day, regardless of the type of filtration treatment used, if the [Virginia Department of Health] determines that less frequent monitoring is sufficient to indicate effective filtration performance.”

(Field staff may want to insert a narrative to further describe this violation situation in this NOAV. Narrative to include observations, sampling results, dates, times, etc. where appropriate)

## **Required Actions**

In accordance with Section 12VAC5-590-540 of the Regulations, you are required to issue a Tier 3 public notice (“Notice”) to the consumers in the area served by the waterworks in accordance with the public notification requirements described below:

**Public Notice:** The Notice requires you to notify consumers in the area served **within 12 months** of learning of the violation. This Notice must be handled as follows:

- You must distribute the Notice no later than *(date)*.
- The Notice must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example), you must also use other delivery methods to provide the Notice to these consumers as well. Examples of other methods include, but are not limited to, publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the waterworks.
- You may choose to include the Notice as an enclosure with or as an integral part of your Consumer Confidence Report (CCR) for *(year)* water quality data. To do so, the combined CCR and public Notice must be distributed to consumers by July 1, *(year)*, AND you must take steps to ensure that the CCR and public Notice reach all persons served by the waterworks. This requirement is more stringent than the “good faith effort” requirements for distributing the CCR alone.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved.)*
- You must repeat distribution of the Notice annually for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved.)*

**Draft Notice:** Attached is a draft Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)*



**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at (phone number) or email at (email address).

Sincerely,

Name & Title  
Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 3 Public Notice
2. Certification Form

ec: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director. Administrator/Manager, name of County, County

**NOTICE TO CONSUMERS  
of the Name WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Major Monitoring Filtration Failure/No Report under SWTR**

Our water system recently violated a drinking water regulation. Although this situation does not require that you take immediate action, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation. During the *(monitoring period, our waterworks failed to accomplish any of its turbidity monitoring requirements and/or report filtration performance under the Surface Water Treatment Rule (SWTR))*, and therefore we cannot be sure of the quality of your drinking water during that time. *(Field staff may want to elaborate and include additional clarifying details).*

*\*Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.\**

**What should I do?**

There is nothing you need to do at this time. You may continue to drink the water. If a situation arises where the water is no longer safe to drink, you will be notified within 24 hours.

**What is being done?**

*(Field staff to describe the corrective action(s) required by the waterworks owner and when the violation is expected to be resolved.)*

For more information, please contact *(name of contact)* at *(phone number)* or *(mailing address)*.

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by *(system)*. State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Major Monitoring Filtration Failure/No Report under SWTR - (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
*(Community Waterworks)*

By direct (hand) delivery on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_

\_\_\_\_\_

Provided to the following broadcast media (list: television/radio/website/social media) on

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ (method and date)

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address

**FM-C14-T3-Attachment 3.** Recordkeeping Failures under RTCR.

**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 3 NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

**NOTICE OF ALLEGED VIOLATION**

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Recordkeeping Failures under RTCR

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-550 B 1 of the Virginia *Waterworks Regulations* (“Regulations”) for failing to maintain the microbiological recordkeeping requirements under the Revised Total Coliform Rule (RTCR). The Regulations characterize this alleged violation as a Tier 3 violation.

Section 12VAC5-590-550 B states, in part, “The owner shall retain at the waterworks or at a convenient location near the waterworks the following records for not less than the time periods specified: 1. Microbiological analyses...including records of any repeat samples collected and meeting the criteria for an extension of the 24-hour period for collecting repeat samples as required...Five years.”

(Field staff may want to insert a narrative to further describe this violation situation that resulted in this NOAV. Narrative to include observations, sampling results, dates, times, etc. where appropriate.)

**Required Actions**

In accordance with Section 12VAC5-590-540 of the Regulations, you are required to issue a Tier 3 public notice (“Notice”) to the consumers in the area served by the waterworks in accordance with the public notification requirements described below:

**Public Notice:** The Notice requires you to notify consumers in the area served **within 12 months** of learning of the violation. This Notice must be handled as follows:

- You must distribute the Notice no later than *(date)*.
- The Notice must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example), you must also use other delivery methods to provide the Notice to these consumers as well. Examples of other methods include, but are not limited to, publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the waterworks.
- You may choose to include the Notice as an enclosure with or as an integral part of your Consumer Confidence Report (CCR) for *(year)* water quality data. To do so, the combined CCR and public Notice must be distributed to consumers by July 1, *(year)*, AND you must take steps to ensure that the CCR and public Notice reach all persons served by the waterworks. This requirement is more stringent than the “good faith effort” requirements for distributing the CCR alone.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved.)*
- You must repeat distribution of the Notice annually for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved.)*

**Draft Notice:** Attached is a draft Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27 and 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at (phone number) or email at (email address).

Sincerely,

Name & Title

Field office name

ABC.xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 3 Public Notice
2. Certification Form

cc: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director. Administrator/Manager, name of County, County

**NOTICE TO CONSUMERS  
of the Name WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Recordkeeping Violations under RTCR**

Our water system recently violated a drinking water regulation. Although this situation does not require that you take immediate action, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation. During the *(monitoring period)*, our waterworks recently failed to comply with the requirement to maintain the microbiological recordkeeping requirements under the Revised Total Coliform Rule (RTCR). *(Field staff may want to elaborate and include additional clarifying details).*

**What should I do?**

There is nothing you need to do at this time. You may continue to drink the water. If a situation arises where the water is no longer safe to drink, you will be notified within 24 hours.

**What is being done?**

*(Field staff to describe the corrective action(s) required by the waterworks owner and when the violation is expected to be resolved.)*

For more information, please contact *(name of contact)* at *(phone number)* or *(mailing address)*.

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by *(system)*. State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Recordkeeping Violations under RTCR - (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
*(Community/Noncommunity Waterworks)*

By direct (hand) delivery on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_

Provided to the following broadcast media (list: television/radio/website/social media) on

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ (method and date)

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address



**FM-C14-T3-Attachment 4. Minor Routine Monitoring Failure under RTCR.**

**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 3 NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

**NOTICE OF ALLEGED VIOLATION**

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Minor Routine Monitoring Failure under RTCR

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-370 A 1 of the Virginia *Waterworks Regulations* (“Regulations”) for failing to collect all of the required bacteriological samples during the (insert monitoring period). The Regulations characterize this alleged violation as a Tier 3 violation. (Field staff may want to include additional specifics on this violation).

Section 12VAC5-590-370 A 1 states, in part, “The owner shall collect total coliform samples at specific sites and according to a schedule that is representative of water quality throughout the distribution system, which shall be documented in a written [bacteriological sample siting plan]. The [bacteriological sample siting plan] shall be established or approved by the [Virginia Department of Health]....”

(Field staff may want to insert a narrative to further describe this violation situation that resulted in this NOAV, to include specifics such as observations, concentration levels, dates, times, etc. where appropriate).

**Required Actions**

In accordance with Section 12VAC5-590-540 of the Regulations, you are required to issue a Tier 3 public notice (“Notice”) to the consumers in the area served by the waterworks in accordance with the public notification requirements described below:

**Public Notice:** The Notice requires you to notify consumers in the area served **within 12 months** of learning of the violation. This Notice must be handled as follows:

- You must distribute the Notice no later than *(date)*.
- The Notice must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example), you must also use other delivery methods to provide the Notice to these consumers as well. Examples of other methods include, but are not limited to, publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the waterworks.
- You may choose to include the Notice as an enclosure with or as an integral part of your Consumer Confidence Report (CCR) for *(year)* water quality data. To do so, the combined CCR and public Notice must be distributed to consumers by July 1, *(year)*, AND you must take steps to ensure that the CCR and public Notice reach all persons served by the waterworks. This requirement is more stringent than the “good faith effort” requirements for distributing the CCR alone.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved.)*
- You must repeat distribution of the Notice annually for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved.)*

**Draft Notice:** Attached is a draft Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at (phone number) or email at (email address).

Sincerely,

Name & Title  
Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 3 Public Notice
2. Certification Form

ec: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director. Administrator/Manager, name of County, County

**NOTICE TO CONSUMERS  
of the Name WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Minor Routine Monitoring Failure under RTCR**

Our water system recently failed to comply with the requirement to collect bacteriological samples in accordance with our approved bacteriological sample siting plan (BSSP). Although this situation does not require that you take immediate action, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation.

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During *(compliance period)*, we failed to collect all of the required samples, and therefore we cannot be sure of the quality of your drinking water during that time. *(Field staff may want to include additional clarifying details).*

**What should I do?**

There is nothing you need to do at this time. You may continue to drink the water. If a situation arises where the water is no longer safe to drink, you will be notified within 24 hours.

**What is being done?**

*(Field staff to describe the corrective action(s) required by the waterworks owner and when the violation is expected to be resolved.)*

For more information, please contact *(name of contact)* at *(phone number)* or *(mailing address)*.

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by *(system)*. State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Minor Routine Monitoring Failure under RTCR - (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
*(Community Waterworks)*

By direct (hand) delivery on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_

Provided to the following broadcast media *(list: television/radio/website/social media)* on

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ *(method and date)*

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address

**FM-C14-T3-Attachment 5.** Major Routine Monitoring Failure under RTCR.

**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 3 NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

**NOTICE OF ALLEGED VIOLATION**

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Major Routine Monitoring Failure under RTCR

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-370 A 1 of the Virginia *Waterworks Regulations* (“Regulations”) for failing to collect any of the required bacteriological samples during the (insert monitoring period). The Regulations characterize this alleged violation as a Tier 3 violation. (Field staff may want to include additional specifics on this violation).

Section 12VAC5-590-370 A 1 states, in part, “The owner shall collect total coliform samples at specific sites and according to a schedule that is representative of water quality throughout the distribution system, which shall be documented in a written [bacteriological sample siting plan]. The [bacteriological sample siting plan] shall be established or approved by the [Virginia Department of Health]....”

(Field staff may want to insert a narrative to further describe this violation situation that resulted in this NOAV, to include specifics such as observations, concentration levels, dates, times, etc. where appropriate).

**Required Actions**

In accordance with Section 12VAC5-590-540 of the Regulations, you are required to issue a Tier 3 public notice (“Notice”) to the consumers in the area served by the waterworks in accordance with the public notification requirements described below:

**Public Notice:** The Notice requires you to notify consumers in the area served **within 12 months** of learning of the violation. This Notice must be handled as follows:

- You must distribute the Notice no later than *(date)*.
- The Notice must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example), you must also use other delivery methods to provide the Notice to these consumers as well. Examples of other methods include, but are not limited to, publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the waterworks.
- You may choose to include the Notice as an enclosure with or as an integral part of your Consumer Confidence Report (CCR) for *(year)* water quality data. To do so, the combined CCR and public Notice must be distributed to consumers by July 1, *(year)*, AND you must take steps to ensure that the CCR and public Notice reach all persons served by the waterworks. This requirement is more stringent than the “good faith effort” requirements for distributing the CCR alone.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved.)*
- You must repeat distribution of the Notice annually for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved.)*

**Draft Notice:** Attached is a draft Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at (phone number) or email at (email address).

Sincerely,

Name & Title  
Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 3 Public Notice
2. Certification Form

cc: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director. Administrator/Manager, name of County, County



**NOTICE TO CONSUMERS  
of the Name WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Major Routine Monitoring Failure under RTCR**

Our water system recently failed to comply with the requirement to collect bacteriological samples in accordance with our approved bacteriological sample siting plan (BSSP). Although this situation does not require that you take immediate action, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation.

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During *(compliance period)*, we did not collect any of the required samples, and therefore we cannot be sure of the quality of your drinking water during that time. *(Field staff may want to include additional clarifying details).*

**What should I do?**

There is nothing you need to do at this time. You may continue to drink the water. If a situation arises where the water is no longer safe to drink, you will be notified within 24 hours.

**What is being done?**

*(Field staff to describe the corrective action(s) required by the waterworks owner and when the violation is expected to be resolved.)*

For more information, please contact *(name of contact)* at *(phone number)* or *(mailing address)*.

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by *(system)*. State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Major Routine Monitoring Failure under RTCR - (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
**(Community Waterworks)**

By direct (hand) delivery on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_  
\_\_\_\_\_

Provided to the following broadcast media (list: television/radio/website/social media) on

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ (method and date)

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address

**FM-C14-Attachment 6.** Minor Additional Routine Monitoring Failure under RTCR.

**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 3 NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

## NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Minor Additional Routine Monitoring Failure under RTCR

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-370 A 13 a of the Virginia *Waterworks Regulations* (“Regulations”) for failing to collect all of the required additional bacteriological samples during the (insert monitoring period). The Regulations characterize this alleged violation as a Tier 3 violation. (Field staff may want to include additional specifics on this violation).

Section 12VAC5-590-370 A 13 a states, in part, “The owner collecting samples on a quarterly or annual frequency shall collect at least three additional routine samples during the month following one or more total coliform-positive samples, with or without a Level 1 treatment trigger. The owner shall use the results of additional routine samples in coliform treatment technique trigger calculations....”

(Field staff may want to insert a narrative to further describe this violation situation in this NOAV. Narrative to include observations, sampling results, dates, times, etc. where appropriate.)

### **Required Actions**

In accordance with Section 12VAC5-590-540 of the Regulations, you are required to issue a Tier 3 public notice (“Notice”) to the consumers in the area served by the waterworks in accordance with the public notification requirements described below:

**Public Notice:** The Notice requires you to notify consumers in the area served **within 12 months** of learning of the violation. This Notice must be handled as follows:

- You must distribute the Notice no later than *(date)*.
- The Notice must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example), you must also use other delivery methods to provide the Notice to these consumers as well. Examples of other methods include, but are not limited to, publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the waterworks.
- You may choose to include the Notice as an enclosure with or as an integral part of your Consumer Confidence Report (CCR) for *(year)* water quality data. To do so, the combined CCR and public Notice must be distributed to consumers by July 1, *(year)*, AND you must take steps to ensure that the CCR and public Notice reach all persons served by the waterworks. This requirement is more stringent than the “good faith effort” requirements for distributing the CCR alone.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved.)*
- You must repeat distribution of the Notice annually for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved.)*

**Draft Notice:** Attached is a draft Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at (phone number) or email at (email address).

Sincerely,

Name & Title  
Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 3 Public Notice
2. Certification Form

ec: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director. Administrator/Manager, name of County, County

**NOTICE TO CONSUMERS  
of the Name WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Minor Additional Routine Monitoring Failure under RTCR**

Our water system recently failed to comply with the requirement to collect all of the required additional bacteriological samples in accordance with our approved bacteriological sample siting plan (BSSP). Although this situation does not require that you take immediate action, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation.

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During *(compliance period)*, we failed to collect all of the required samples, and therefore we cannot be sure of the quality of your drinking water during that time. *(Field staff may want to include additional clarifying details).*

**What should I do?**

There is nothing you need to do at this time. You may continue to drink the water. If a situation arises where the water is no longer safe to drink, you will be notified within 24 hours.

**What is being done?**

*(Field staff to describe the corrective action(s) required by the waterworks owner and when the violation is expected to be resolved.)*

For more information, please contact *(name of contact)* at *(phone number)* or *(mailing address)*.

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by *(system)*. State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Minor Additional Routine Monitoring Failure under RTCR - (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
*(Noncommunity Waterworks)*

Posted on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_

Provided to the following broadcast media *(list: television/radio/website/social media)* on

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ *(method and date)*

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
*Name* Field Office, Office of Drinking Water  
*Address*

**FM-C14-T3-Attachment 7.** Major Additional Routine Monitoring Failure under RTCR.

**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 3 NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

## NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Major Additional Routine Monitoring Failure under RTCR

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-370 A 13 a of the Virginia *Waterworks Regulations* (“Regulations”) for failing to collect any of the required additional bacteriological samples during the (insert monitoring period). The Regulations characterize this alleged violation as a Tier 3 violation. (Field staff may want to include additional specifics on this violation).

Section 12VAC5-590-370 A 13 a states, in part, “The owner collecting samples on a quarterly or annual frequency shall collect at least three additional routine samples during the month following one or more total coliform-positive samples, with or without a Level 1 treatment trigger. The owner shall use the results of additional routine samples in coliform treatment technique trigger calculations....”

(Field staff may want to insert a narrative to further describe this violation situation in this NOAV. Narrative to include observations, sampling results, dates, times, etc. where appropriate.)

### **Required Actions**

In accordance with Section 12VAC5-590-540 of the Regulations, you are required to issue a Tier 3 public notice (“Notice”) to the consumers in the area served by the waterworks in accordance with the public notification requirements described below:



**Public Notice:** The Notice requires you to notify consumers in the area served **within 12 months** of learning of the violation. This Notice must be handled as follows:

- You must distribute the Notice no later than *(date)*.
- The Notice must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example), you must also use other delivery methods to provide the Notice to these consumers as well. Examples of other methods include, but are not limited to, publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the waterworks.
- You may choose to include the Notice as an enclosure with or as an integral part of your Consumer Confidence Report (CCR) for *(year)* water quality data. To do so, the combined CCR and public Notice must be distributed to consumers by July 1, *(year)*, AND you must take steps to ensure that the CCR and public Notice reach all persons served by the waterworks. This requirement is more stringent than the “good faith effort” requirements for distributing the CCR alone.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved.)*
- You must repeat distribution of the Notice annually for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved.)*

**Draft Notice:** Attached is a draft Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at (phone number) or email at (email address).

Sincerely,

Name & Title  
Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 3 Public Notice
2. Certification Form

ec: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director.  
Administrator/Manager, name of County, County

**NOTICE TO CONSUMERS  
of the Name WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Major Additional Routine Monitoring Failure under RTCR**

Our water system recently failed to comply with the requirement to collect the required additional bacteriological samples in accordance with our approved bacteriological sample siting plan (BSSP). Although this situation does not require that you take immediate action, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation.

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During *(compliance period)*, we did not collect any of the required additional samples, and therefore we cannot be sure of the quality of your drinking water during that time. *(Field staff may want to include additional clarifying details).*

**What should I do?**

There is nothing you need to do at this time. You may continue to drink the water. If a situation arises where the water is no longer safe to drink, you will be notified within 24 hours.

**What is being done?**

*(Field staff to describe the corrective action(s) required by the waterworks owner and when the violation is expected to be resolved.)*

For more information, please contact *(name of contact)* at *(phone number)* or *(mailing address)*.

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by *(system)*. State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Major Additional Routine Monitoring Failure under RTCR - (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
*(Noncommunity Waterworks)*

Posted on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_

Provided to the following broadcast media *(list: television/radio/website/social media)* on

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ *(method and date)*

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address

**FM-C14-T3-Attachment 8.** Failure to Submit Seasonal Start-Up Procedures Certification Form under RTCR.

**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 3 NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

### NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Failure to Submit Seasonal Start-Up Procedures Certification Form under RTCR

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-370 A 12 e of the Virginia *Waterworks Regulations* (“Regulations”) for failing to submit the seasonal start-up procedures certification form. The Regulations characterize this alleged violation as a Tier 3 violation.

Section 12VAC5-590-370 A 12 a states, “A seasonal waterworks shall demonstrate completion of an approved start-up procedure that may include start-up sampling before serving water.”

Section 12VAC5-590-370 A 12 e states, in part, “Failure to submit certification of completion to the [Virginia Department of Health] after the owner completes an approved start-up procedure is a reporting violation and requires the owner to provide public notification under Tier 3 conditions....”

(Field staff may want to insert a narrative to further describe this violation situation that resulted in this NOAV, to include specifics such as observations, concentration levels, dates, times, etc. where appropriate).

#### **Required Actions**

In accordance with Section 12VAC5-590-540 of the Regulations, you are required to issue a Tier 3 public notice (“Notice”) to the consumers in the area served by the waterworks in accordance with the public notification requirements described below:

**Public Notice:** The Notice requires you to notify consumers in the area served **within 12 months** of learning of the violation. This Notice must be handled as follows:

- You must distribute the Notice no later than *(date)*.
- The Notice must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example), you must also use other delivery methods to provide the Notice to these consumers as well. Examples of other methods include, but are not limited to, publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the waterworks.
- You may choose to include the Notice as an enclosure with or as an integral part of your Consumer Confidence Report (CCR) for *(year)* water quality data. To do so, the combined CCR and public Notice must be distributed to consumers by July 1, *(year)*, AND you must take steps to ensure that the CCR and public Notice reach all persons served by the waterworks. This requirement is more stringent than the “good faith effort” requirements for distributing the CCR alone.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved.)*
- You must repeat distribution of the Notice annually for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved.)*

**Draft Notice:** Attached is a draft Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil

charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at (phone number) or email at (email address).

Sincerely,

Name & Title

Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 3 Public Notice
2. Certification Form

cc: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director. Administrator/Manager, name of County, County

**NOTICE TO CONSUMERS  
of the Name WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Failure to Submit Seasonal Start-Up Procedures Certification Form under RTCR**

Our water system recently failed to comply with the requirement to submit the start-up procedures certification form before serving water to the public. Although this situation does not require that you take immediate action, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation.

We are required to test our drinking water for specific contaminants in accordance with an approved start-up procedure before serving water to the public. During *(compliance period)*, we did not submit the seasonal start-up procedures certification form. *(Field staff may want to include additional clarifying details).*

**What should I do?**

There is nothing you need to do at this time. You may continue to drink the water. If a situation arises where the water is no longer safe to drink, you will be notified within 24 hours.

**What is being done?**

*(Field staff to describe the corrective action(s) required by the waterworks owner and when the violation is expected to be resolved.)*

For more information, please contact *(name of contact)* at *(phone number)* or *(mailing address)*.

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by *(system)*. State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.



SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Failure to Submit Seasonal Start-Up Procedures Certification Form under RTCR  
- (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
*(Noncommunity Waterworks)*

Posted on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

At the following locations: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

By direct (hand) delivery on \_\_\_\_\_ *(date)*

By mail delivery on \_\_\_\_\_ *(date)*

Other approved method \_\_\_\_\_ *(method and date)*

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address

**FM-C14-T3-Attachment 9.** Failure to Submit a Level 2 Assessment Report under RTCR.

**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 3 NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

### NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner

Address 1

Address 2

City, State, Zip

Re: Failure to Submit a Level 2 Assessment Report under RTCR

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-392 C 3 a of the Virginia *Waterworks Regulations* (“Regulations”) for failing to submit the required Level 2 Assessment report after consultation with and technical assistance from the field office staff. The Regulations characterize this alleged violation as a Tier 3 violation.

Section 12VAC5-590-392 C 3 a states, in part, “The owner shall complete the assessment and document the assessment on a form approved by the [Virginia Department of Health]. The owner shall submit the assessment form, as soon as practical, but within 30 days after the owner learns that a trigger...has been exceeded.”

(Field staff may want to insert a narrative to further describe this violation situation in this NOAV. Narrative to include observations, sampling results, dates, times, etc. where appropriate.)

#### **Required Actions**

In accordance with Section 12VAC5-590-540 of the Regulations, you are required to issue a Tier 3 public notice (“Notice”) to the consumers in the area served by the waterworks in accordance with the public notification requirements described below:

**Public Notice:** The Notice requires you to notify consumers in the area served **within 12 months** of learning of the violation. This Notice must be handled as follows:

- You must distribute the Notice no later than *(date)*.
- The Notice must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example), you must also use other delivery methods to provide the Notice to these consumers as well. Examples of other methods include, but are not limited to, publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the waterworks.
- You may choose to include the Notice as an enclosure with or as an integral part of your Consumer Confidence Report (CCR) for *(year)* water quality data. To do so, the combined CCR and public Notice must be distributed to consumers by July 1, *(year)*, AND you must take steps to ensure that the CCR and public Notice reach all persons served by the waterworks. This requirement is more stringent than the “good faith effort” requirements for distributing the CCR alone.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved.)*
- You must repeat distribution of the Notice annually for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved.)*

**Draft Notice:** Attached is a draft Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at (phone number) or email at (email address).

Sincerely,

Name & Title

Field office name

ABC.xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 3 Public Notice
2. Certification Form

cc: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director. Administrator/Manager, name of County, County

**NOTICE TO CONSUMERS  
of the Name WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Failure to Submit a Level 2 Assessment Report under RTCR**

Our water system recently failed to comply with the requirement to submit the Level 2 Assessment report after consultation with and technical assistance from the field office staff. Although this situation does not require that you take immediate action, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation.

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During *(compliance period)*, we did not submit the Level 2 Assessment report following the exceedance of the treatment technique trigger on *(date)*, and therefore we cannot be sure of the quality of your drinking water during that time. *(Field staff may want to include additional clarifying details).*

**What should I do?**

There is nothing you need to do at this time. You may continue to drink the water. If a situation arises where the water is no longer safe to drink, you will be notified within 24 hours.

**What is being done?**

*(Field staff to describe the corrective action(s) required by the waterworks owner and when the violation is expected to be resolved.)*

For more information, please contact *(name of contact)* at *(phone number)* or *(mailing address)*.

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by *(system)*. State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Failure to Submit a Level 2 Assessment Report under RTCR - (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
(Community/Noncommunity Waterworks)

By direct (hand) delivery on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_

Provided to the following broadcast media (list: television/radio/website/social media) on

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ (method and date)

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address

**FM-C14-T3-Attachment 10.** Failure to Submit a Level 1 Assessment Report under RTRC.

**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 3 NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

## NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner

Address 1

Address 2

City, State, Zip

Re: Failure to Submit a Level 1 Assessment Report under RTRC

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-392 C 3 a of the Virginia *Waterworks Regulations* (“Regulations”) for failing to submit the required Level 1 Assessment report. The Regulations characterize this alleged violation as a Tier 3 violation.

Section 12VAC5-590-392 C 3 a states, in part, “The owner shall complete the assessment and document the assessment on a form approved by the [Virginia Department of Health]. The owner shall submit the assessment form, as soon as practical, but within 30 days after the owner learns that a trigger...has been exceeded.”

(Field staff may want to insert a narrative to further describe this violation situation in this NOAV. Narrative to include observations, sampling results, dates, times, etc. where appropriate.)

### **Required Actions**

In accordance with Section 12VAC5-590-540 of the Regulations, you are required to issue a Tier 3 public notice (“Notice”) to the consumers in the area served by the waterworks in accordance with the public notification requirements described below:

**Public Notice:** The Notice requires you to notify consumers in the area served **within 12 months** of learning of the violation. This Notice must be handled as follows:

- You must distribute the Notice no later than (date).

- The Notice must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example), you must also use other delivery methods to provide the Notice to these consumers as well. Examples of other methods include, but are not limited to, publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the waterworks.
- You may choose to include the Notice as an enclosure with or as an integral part of your Consumer Confidence Report (CCR) for *(year)* water quality data. To do so, the combined CCR and public Notice must be distributed to consumers by July 1, *(year)*, AND you must take steps to ensure that the CCR and public Notice reach all persons served by the waterworks. This requirement is more stringent than the “good faith effort” requirements for distributing the CCR alone.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved.)*
- You must repeat distribution of the Notice annually for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved.)*

**Draft Notice:** Attached is a draft Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at *(phone number)* or email at *(email address)*.

Sincerely,



Name & Title  
Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 3 Public Notice
2. Certification Form

ec or cc: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director.  
Administrator/Manager, name of County, County

**NOTICE TO CONSUMERS  
of the Name WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Failure to Submit a Level 1 Assessment Report (RTCR)**

Our water system recently failed to comply with the requirement to submit the Level 1 Assessment report. Although this situation does not require that you take immediate action, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation.

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During *(compliance period)*, we did not submit the Level 1 Assessment report following the exceedance of the treatment technique trigger on *(date)*, and therefore we cannot be sure of the quality of your drinking water during that time. *(Field staff may want to include additional clarifying details).*

**What should I do?**

There is nothing you need to do at this time. You may continue to drink the water. If a situation arises where the water is no longer safe to drink, you will be notified within 24 hours.

**What is being done?**

*(Field staff to describe the corrective action(s) required by the waterworks owner and when the violation is expected to be resolved.)*

For more information, please contact *(name of contact)* at *(phone number)* or *(mailing address)*.

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by *(system)*. State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Failure to Submit a Level 1 Assessment Report (RTCR) - (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
*(Community Waterworks)*

By direct (hand) delivery on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_

Provided to the following broadcast media *(list: television/radio/website/social media)* on

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ *(method and date)*

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address

**FM-C14-T3-Attachment 11.** Failure to Report on the Completion of Level 1 or Level 2 Corrective Actions under RTCR.

**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 3 NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

### NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Failure to Report on the Completion of Level 1 or Level 2 Corrective Actions under RTCR

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-392 D 2 of the Virginia *Waterworks Regulations* (“Regulations”) for failing to notify the Office of Drinking Water (ODW) on the timely completion of corrective actions required following Level 1 or Level 2 treatment technique violations. The Regulations characterize this alleged violation as a Tier 3 violation.

Section 12VAC5-590-392 D 2 states, “The owner shall complete the corrective actions in compliance with the timetable approved by the [Virginia Department of Health] in consultation with the owner. The owner shall notify the [Virginia Department of Health] no later than seven days after each scheduled corrective action is completed.”

(Field staff may want to insert a narrative to further describe this violation situation that resulted in this NOAV, to include specifics such as observations, concentration levels, dates, times, etc. where appropriate).

#### **Required Actions**

In accordance with Section 12VAC5-590-540 of the Regulations, you are required to issue a Tier 3 public notice (“Notice”) to the consumers in the area served by the waterworks in accordance with the public notification requirements described below:

**Public Notice:** The Notice requires you to notify consumers in the area served **within 12 months** of learning of the violation. This Notice must be handled as follows:

- You must distribute the Notice no later than *(date)*.
- The Notice must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example), you must also use other delivery methods to provide the Notice to these consumers as well. Examples of other methods include, but are not limited to, publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the waterworks.
- You may choose to include the Notice as an enclosure with or as an integral part of your Consumer Confidence Report (CCR) for *(year)* water quality data. To do so, the combined CCR and public Notice must be distributed to consumers by July 1, *(year)*, AND you must take steps to ensure that the CCR and public Notice reach all persons served by the waterworks. This requirement is more stringent than the “good faith effort” requirements for distributing the CCR alone.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved.)*
- You must repeat distribution of the Notice annually for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved.)*

**Draft Notice:** Attached is a draft Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at (phone number) or email at (email address).

Sincerely,

Name & Title  
Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 3 Public Notice
2. Certification Form

ec: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director.  
Administrator/Manager, name of County, County

**NOTICE TO CONSUMERS  
of the Name WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Failure to Report on the Completion of Level 1 or Level 2 Corrective Actions under RTCR**

On *(give date)*, we became aware that our system recently failed to notify the Office of Drinking Water (ODW) on the timely completion of corrective actions that were required following *Level 1 or Level 2* treatment technique violations. Although this incident was not an emergency, as our customers, you have a right to know what happened and what we did (are doing) to correct this situation.

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During *(compliance period)*, we failed to notify the Office of Drinking Water (ODW) on the timely completion of corrective actions that were required following *Level 1 or Level 2* treatment technique violations, and therefore cannot be sure of the quality of your drinking water during that time. *(Field staff may want to include additional clarifying details).*

**What should I do?**

There is nothing you need to do at this time. You may continue to drink the water. If a situation arises where the water is no longer safe to drink, you will be notified within 24 hours.

**What is being done?**

*(Field staff to describe the corrective action(s) required by the waterworks owner and when the violation is expected to be resolved.)*

For more information, please contact *(name of contact)* at *(phone number)* or *(mailing address)*.

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by *(system)*. State Water System ID#: \_\_\_\_\_.  
Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Failure to Report on the Completion of Level 1 or Level 2 Corrective Actions under RTCR - (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
*(Community/Noncommunity Waterworks)*

By direct (hand) delivery on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_

Provided to the following broadcast media *(list: television/radio/website/social media)* on

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ *(method and date)*

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
*Name* Field Office, Office of Drinking Water  
*Address*



**FM-C14-T3-Attachment 12.** Failure to Correct Sample Siting Plan Errors under RTCR.

**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 3 NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

### NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Failure to Correct Sample Siting Plan Errors under RTCR

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-370 A 4 of the Virginia *Waterworks Regulations* (“Regulations”) for failing to implement sampling plan revisions resulting from observations from a previous sanitary survey. The Regulations characterize this alleged violation as a Tier 3 violation.

12VAC5-590-370 A 4 states, in part, “If the results of a sanitary survey or other factors determine that some other frequency is more appropriate... then a modified [bacteriological sample siting plan] may be required. The altered frequency shall be confirmed or changed on the basis of subsequent sanitary surveys or as otherwise determined by the [Virginia Department of Health].”

(Field staff may want to insert a narrative to further describe this violation situation that resulted in this NOAV. Narrative to include observations, sampling results, dates, times, etc. where appropriate.)

#### **Required Actions**

In accordance with Section 12VAC5-590-540 of the Regulations, you are required to issue a Tier 3 public notice (“Notice”) to the consumers in the area served by the waterworks in accordance with the public notification requirements described below:

**Public Notice:** The Notice requires you to notify consumers in the area served **within 12 months** of learning of the violation. This Notice must be handled as follows:

- You must distribute the Notice no later than *(date)*.
- The Notice must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example), you must also use other delivery methods to provide the Notice to these consumers as well. Examples of other methods include, but are not limited to, publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the waterworks.
- You may choose to include the Notice as an enclosure with or as an integral part of your Consumer Confidence Report (CCR) for *(year)* water quality data. To do so, the combined CCR and public Notice must be distributed to consumers by July 1, *(year)*, AND you must take steps to ensure that the CCR and public Notice reach all persons served by the waterworks. This requirement is more stringent than the “good faith effort” requirements for distributing the CCR alone.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved.)*
- You must repeat distribution of the Notice annually for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved.)*

**Draft Notice:** Attached is a draft Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at (phone number) or email at (email address).

Sincerely,

Name & Title  
Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 3 Public Notice
2. Certification Form

ec or cc: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director. Administrator/Manager, name of County, County

**NOTICE TO CONSUMERS  
of the Name WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Failure to Correct Sample Siting Plan Errors under RTCR**

Our water system recently failed to comply with the requirement to correct sample siting plan errors. Although this situation does not require that you take immediate action, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation.

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During *(compliance/monitoring period)*, we failed to implement the sampling plan revisions resulting from observations from a previous sanitary survey, and therefore we cannot be sure of the quality of your drinking water during that time. *(Field staff may want to further describe the violation, to include specifics such as observations, concentration levels, dates, times, etc.to summarize situational correctness).*

**What should I do?**

There is nothing you need to do at this time. You may continue to drink the water. If a situation arises where the water is no longer safe to drink, you will be notified within 24 hours.

**What is being done?**

*(Field staff to describe the corrective action(s) required by the waterworks owner and when the violation is expected to be resolved.)*

For more information, please contact *(name of contact)* at *(phone number)* or *(mailing address)*.

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by *(system)*. State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Failure to Correct Sample Siting Plan Errors under RTCR - (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
(Community/Noncommunity Waterworks)

By direct (hand) delivery on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_

Provided to the following broadcast media (list: television/radio/website/social media) on

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ (method and date)

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address

**FM-C14-T3-Attachment 13.** Monitoring Failure Due to Use of Unapproved Analytical Method. **INSTRUCTIONS:** Field staff to use this template to finalize the Tier 3 NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

### NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Monitoring Failure Due to Use of Unapproved Analytical Method

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-440 A of the Virginia *Waterworks Regulations* (“Regulations”) for *(failing to have a certified laboratory use) (failing to use)* an approved analytical method to perform the required compliance monitoring. The Regulations characterize this alleged violation as a Tier 3 violation.

Section 12VAC5-590-440 A states, in part, “All drinking water analyses for compliance purposes shall be performed by analytical methods that are consistent with current EPA regulations.... Standards for laboratories seeking certification to perform drinking water analyses are... promulgated by the Department of General Services, DCLS.”

(Field staff may want to insert a narrative to further describe this violation situation in this NOAV. Narrative to include observations, sampling results, dates, times, etc. where appropriate.)

#### **Required Actions**

In accordance with Section 12VAC5-590-540 of the Regulations, you are required to issue a Tier 3 public notice (“Notice”) to the consumers in the area served by the waterworks in accordance with the public notification requirements described below:

**Public Notice:** The Notice requires you to notify consumers in the area served **within 12 months** of learning of the violation. This Notice must be handled as follows:

- You must distribute the Notice no later than *(date)*.
- The Notice must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example), you must also use other delivery methods to provide the Notice to these consumers as well. Examples of other methods include, but are not limited to, publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the waterworks.
- You may choose to include the Notice as an enclosure with or as an integral part of your Consumer Confidence Report (CCR) for *(year)* water quality data. To do so, the combined CCR and public Notice must be distributed to consumers by July 1, *(year)*, AND you must take steps to ensure that the CCR and public Notice reach all persons served by the waterworks. This requirement is more stringent than the “good faith effort” requirements for distributing the CCR alone.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved.)*
- You must repeat distribution of the Notice annually for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved.)*

**Draft Notice:** Attached is a draft Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at *(phone number)* or email at *(email address)*.

Sincerely,

Name & Title  
Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 3 Public Notice
2. Certification Form

cc or cc: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director.  
Administrator/Manager, name of County, County



**NOTICE TO CONSUMERS  
of the Name WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Monitoring Failure Due to Use of Unapproved Analytical Method**

Our water system recently failed to comply with the requirement to use an approved analytical method to perform the required compliance monitoring. Although this situation does not require that you take immediate action, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation.

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During *(compliance period)*, we failed to use an approved analytical method to perform the required analysis, and therefore we cannot be sure of the quality of the drinking water during that time. *(Field staff may want to further describe the violation, to include additional specifics such as observations, dates, times, etc. to summarize situational correctness).*

**What should I do?**

There is nothing you need to do at this time. You may continue to drink the water. If a situation arises where the water is no longer safe to drink, you will be notified within 24 hours.

**What is being done?**

*(Field staff to describe the corrective action(s) required by the waterworks owner and when the violation is expected to be resolved.)*

For more information, please contact *(name of contact)* at *(phone number)* or *(mailing address)*.

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by *(system)*. State Water System ID#: \_\_\_\_\_.  
Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Monitoring Failure Due to Use of Unapproved Analytical Method - (tracking info  
- monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
(Community/Noncommunity Waterworks)

By direct (hand) delivery on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_  
\_\_\_\_\_

Provided to the following broadcast media (list: television/radio/website/social media) on

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ (method and date)

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address

**FM-C14-T3-Attachment 14.** Monitoring Failure Due to Improper Laboratory Certification.  
**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 3 NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

## NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Monitoring Failure Due to Improper Laboratory Certification

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-440 B of the Virginia *Waterworks Regulations* (“Regulations”) for failing to use a certified laboratory to perform the required compliance monitoring. The Regulations characterize this alleged violation as a Tier 3 violation.

Section 12VAC5-590-440 B states, “For the purposes of determining compliance, the [Virginia Department of Health] will only accept results from samples that have been collected, handled, processed, and documented in accordance with the Regulation for the Certification of Laboratories Analyzing Drinking Water (1VAC30-41) and regulations for the Accreditation for Commercial Environmental Laboratories (1VAC30-46).”

(Field staff may want to insert a narrative to further describe this violation situation that resulted in this NOAV. Narrative to include observations, sampling results, dates, times, etc. where appropriate.)

### **Required Actions**

In accordance with Section 12VAC5-590-540 of the Regulations, you are required to issue a Tier 3 public notice (“Notice”) to the consumers in the area served by the waterworks in accordance with the public notification requirements described below:

**Public Notice:** The Notice requires you to notify consumers in the area served **within 12 months** of learning of the violation. This Notice must be handled as follows:

- You must distribute the Notice no later than *(date)*.
- The Notice must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example), you must also use other delivery methods to provide the Notice to these consumers as well. Examples of other methods include, but are not limited to, publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the waterworks.
- You may choose to include the Notice as an enclosure with or as an integral part of your Consumer Confidence Report (CCR) for *(year)* water quality data. To do so, the combined CCR and public Notice must be distributed to consumers by July 1, *(year)*, AND you must take steps to ensure that the CCR and public Notice reach all persons served by the waterworks. This requirement is more stringent than the “good faith effort” requirements for distributing the CCR alone.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved.)*
- You must repeat distribution of the Notice annually for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved.)*

**Draft Notice:** Attached is a draft Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at (phone number) or email at (email address).

Sincerely,

Name & Title  
Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 3 Public Notice
2. Certification Form

cc: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director. Administrator/Manager, name of County, County

**NOTICE TO CONSUMERS  
of the Name WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Monitoring Failure Due to Improper Laboratory Certification**

Our water system recently failed to comply with the requirement to use a certified laboratory to perform the required compliance monitoring. Although this situation does not require that you take immediate action, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation.

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During *(compliance period)*, we failed to use a certified laboratory to perform the required analysis, and therefore we cannot be sure of the quality of the drinking water during that time. *(Field staff may want to further describe the violation, to include specifics such as observations, dates, times, etc. to summarize situational correctness).*

**What should I do?**

There is nothing you need to do at this time. You may continue to drink the water. If a situation arises where the water is no longer safe to drink, you will be notified within 24 hours.

**What is being done?**

*(Field staff to describe the corrective action(s) required by the waterworks owner and when the violation is expected to be resolved.)*

For more information, please contact *(name of contact)* at *(phone number)* or *(mailing address)*.

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by *(system)*. State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Monitoring Failure Due to Improper Laboratory Certification - (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
*(Community/Noncommunity Waterworks)*

By direct (hand) delivery on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_

Provided to the following broadcast media *(list: television/radio/website/social media)* on

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ *(method and date)*

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
*Name* Field Office, Office of Drinking Water  
*Address*

**FM-C14-T3-Attachment 15.** Minor Failure to Monitor for Disinfection Byproducts.

**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 3 NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

## NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner

Address 1

Address 2

City, State, Zip

Re: Minor Failure to Monitor for Disinfection Byproducts

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-374 D of the Virginia *Waterworks Regulations* (“Regulations”) for failing to collect all of the routine samples for disinfection byproducts monitoring in accordance with your approved monitoring plan. The Regulations characterize this alleged violation as a minor Tier 3 violation.

Section 12VAC5-590-374 D states, in part, “Failure to monitor in accordance with the monitoring plan...is a monitoring violation. Failure to monitor shall be treated as a violation for the entire period covered by the annual average where compliance is based on [a running annual average] of monthly or quarterly samples or averages, and the owner's failure to monitor makes it impossible to determine compliance with [primary maximum contaminant levels] or [maximum residual disinfectant levels].”

(Field staff may want to insert a narrative to further describe this violation situation in this NOAV. Narrative to include observations, sampling results, dates, times, etc. where appropriate.)

### **Required Actions**

In accordance with Section 12VAC5-590-540 of the Regulations, you are required to issue a Tier 3 public notice (“Notice”) to the consumers in the area served by the waterworks in accordance with the public notification requirements described below:

**Public Notice:** The Notice requires you to notify consumers in the area served **within 12 months** of learning of the violation. This Notice must be handled as follows:



- You must distribute the Notice no later than *(date)*.
- The Notice must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example), you must also use other delivery methods to provide the Notice to these consumers as well. Examples of other methods include, but are not limited to, publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the waterworks.
- You may choose to include the Notice as an enclosure with or as an integral part of your Consumer Confidence Report (CCR) for *(year)* water quality data. To do so, the combined CCR and public Notice must be distributed to consumers by July 1, *(year)*, AND you must take steps to ensure that the CCR and public Notice reach all persons served by the waterworks. This requirement is more stringent than the “good faith effort” requirements for distributing the CCR alone.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved.)*
- You must repeat distribution of the Notice annually for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved.)*

**Draft Notice:** Attached is a draft Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27 and 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at (phone number) or email at (email address).

Sincerely,

Name & Title

Field office name

ABC.xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 3 Public Notice
2. Certification Form

cc: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director. Administrator/Manager, name of County, County

**NOTICE TO CONSUMERS  
of the Name WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Minor Failure to Monitor for Disinfection Byproducts**

On *(give date)*, we became aware that our system recently failed to collect the required number of drinking water samples. Although this incident was not an emergency, as our customers, you have a right to know what happened and what we did (are doing) to correct this situation.

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During *(compliance period)*, we did not collect all of the required routine samples for disinfection byproducts and therefore cannot be sure of the quality of your drinking water during that time. *(Field staff may want to include additional clarifying details).*

**What should I do?**

There is nothing you need to do at this time. You may continue to drink the water. If a situation arises where the water is no longer safe to drink, you will be notified within 24 hours.

**What is being done?**

*(Field staff to describe the corrective action(s) required by the waterworks owner and when the violation is expected to be resolved.)*

For more information, please contact *(name of contact)* at *(phone number)* or *(mailing address)*.

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by *(system)*. State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Minor Failure to Monitor for Disinfection Byproducts - (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
(Community Waterworks)

By direct (hand) delivery on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_

Provided to the following broadcast media (list: television/radio/website/social media) on

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ (method and date)

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address

**FM-C14-T3-Attachment 16.** Major Failure to Monitor for Disinfection Byproducts.

**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 3 NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

### NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Major Failure to Monitor for Disinfection Byproducts

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-374 D of the Virginia *Waterworks Regulations* (“Regulations”) for failing to collect any of the routine samples for disinfection byproducts monitoring in accordance with your approved monitoring plan. The Regulations characterize this alleged violation as a major Tier 3 violation.

Section 12VAC5-590-374 D states, in part, “Failure to monitor in accordance with the monitoring plan...is a monitoring violation. Failure to monitor shall be treated as a violation for the entire period covered by the annual average where compliance is based on [a running annual average] of monthly or quarterly samples or averages, and the owner's failure to monitor makes it impossible to determine compliance with [primary maximum contaminant levels] or [maximum residual disinfectant levels].”

(Field staff may want to insert a narrative to further describe this violation situation in this NOAV. Narrative to include observations, sampling results, dates, times, etc. where appropriate.)

#### **Required Actions**

In accordance with Section 12VAC5-590-540 of the Regulations, you are required to issue a Tier 3 public notice (“Notice”) to the consumers in the area served by the waterworks in accordance with the public notification requirements described below:

**Public Notice:** The Notice requires you to notify consumers in the area served **within 12 months** of learning of the violation. This Notice must be handled as follows:

- You must distribute the Notice no later than *(date)*.
- The Notice must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example), you must also use other delivery methods to provide the Notice to these consumers as well. Examples of other methods include, but are not limited to, publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the waterworks.
- You may choose to include the Notice as an enclosure with or as an integral part of your Consumer Confidence Report (CCR) for *(year)* water quality data. To do so, the combined CCR and public Notice must be distributed to consumers by July 1, *(year)*, AND you must take steps to ensure that the CCR and public Notice reach all persons served by the waterworks. This requirement is more stringent than the “good faith effort” requirements for distributing the CCR alone.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved.)*
- You must repeat distribution of the Notice annually for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved.)*

**Draft Notice:** Attached is a draft Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at (phone number) or email at (email address).

Sincerely,

Name & Title  
Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 3 Public Notice
2. Certification Form

ec or cc: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director. Administrator/Manager, name of County, County

**NOTICE TO CONSUMERS  
of the Name WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Major Failure to Monitor for Disinfection Byproducts**

On *(give date)*, we became aware that our system recently failed to collect the required number of routine drinking water samples. Although this incident was not an emergency, as our customers, you have a right to know what happened and what we did (are doing) to correct this situation.

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During *(compliance period)*, we did not collect any routine samples for disinfection byproducts and therefore cannot be sure of the quality of your drinking water during that time. *(Field staff may want to include additional clarifying details).*

**What should I do?**

There is nothing you need to do at this time. You may continue to drink the water. If a situation arises where the water is no longer safe to drink, you will be notified within 24 hours.

**What is being done?**

*(Field staff to describe the corrective action(s) required by the waterworks owner and when the violation is expected to be resolved.)*

For more information, please contact *(name of contact)* at *(phone number)* or *(mailing address)*.

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by *(system)*. State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.



SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Major Failure to Monitor for Disinfection Byproducts - (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
(Community Waterworks)

By direct (hand) delivery on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_  
\_\_\_\_\_

Provided to the following broadcast media (list: television/radio/website/social media) on

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ (method and date)

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address

**FM-C14-T3-Attachment 17.** Minor Source Monitoring Failure under LT2 Rule.

**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 3 NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined, and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

### NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner

Address 1

Address 2

City, State, Zip

Re: Minor Source Monitoring Failure under LT2 Rule

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-401 B of the Virginia *Waterworks Regulations* (“Regulations”) for failing to collect all of the (*initial round/second round*) source water monitoring samples for the determination of whether additional treatment is required. The Regulations characterize this alleged violation as a Tier 3 violation.

Section 12VAC5-590-401 B states, in part, “The owner shall conduct an initial and a second round of source water monitoring for each water treatment plant that treats a surface water source, a [groundwater under the direct influence of surface water] source, or both. This monitoring may include sampling for Cryptosporidium, E. coli, and turbidity to determine what level, if any, of additional Cryptosporidium treatment is required. 1. Initial round of source water monitoring. The owner shall conduct the...monitoring on the schedule in subdivision B 3 of this section unless the monitoring avoidance criteria...are met.... 2. Second round of source water monitoring. The owner shall conduct a second round of source water monitoring that meets the requirements for monitoring parameters, frequency, and duration described in subdivision B 1 of this section, unless the monitoring exemption criteria...are met.”

(Field staff may want to insert a narrative to further describe this violation situation in this NOAV. Narrative to include observations, sampling results, dates, times, etc. where appropriate.)

## **Required Actions**

In accordance with Section 12VAC5-590-540 of the Regulations, you are required to issue a Tier 3 public notice (“Notice”) to the consumers in the area served by the waterworks in accordance with the public notification requirements described below:

**Public Notice:** The Notice requires you to notify consumers in the area served **within 12 months** of learning of the violation. This Notice must be handled as follows:

- You must distribute the Notice no later than *(date)*.
- The Notice must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example), you must also use other delivery methods to provide the Notice to these consumers as well. Examples of other methods include, but are not limited to, publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the waterworks.
- You may choose to include the Notice as an enclosure with or as an integral part of your Consumer Confidence Report (CCR) for *(year)* water quality data. To do so, the combined CCR and public Notice must be distributed to consumers by July 1, *(year)*, AND you must take steps to ensure that the CCR and public Notice reach all persons served by the waterworks. This requirement is more stringent than the “good faith effort” requirements for distributing the CCR alone.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved.)*
- You must repeat distribution of the Notice annually for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved.)*

**Draft Notice:** Attached is a draft Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at (phone number) or email at (email address).

Sincerely,

Name & Title  
Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 3 Public Notice
2. Certification Form

ec: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director. Administrator/Manager, name of County, County

**NOTICE TO CONSUMERS  
of the Name WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Minor Source Monitoring Failure under LT2 Rule**

Our water system recently failed to collect all of the *(initial round/second round)* source water monitoring samples for the determination of whether additional treatment is required. Although this situation does not require that you take immediate action, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation.

During *(compliance period)*, we failed to collect all of the required samples, and therefore we cannot be sure of the quality of your drinking water during that time. *(Field staff may want to further describe the violation, to include specifics such as observations, concentration levels, dates, times, etc. to summarize situational correctness).*

**What should I do?**

There is nothing you need to do at this time. You may continue to drink the water. If a situation arises where the water is no longer safe to drink, you will be notified within 24 hours.

**What is being done?**

*(Field staff to describe the corrective action(s) required by the waterworks owner and when the violation is expected to be resolved.)*

For more information, please contact *(name of contact)* at *(phone number)* or *(mailing address)*.

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by *(system)*. State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Minor Source Monitoring Failure under LT2 Rule - (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
*(Community Waterworks)*

By direct (hand) delivery on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_

Provided to the following broadcast media *(list: television/radio/website/social media)* on

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ *(method and date)*

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
*Name* Field Office, Office of Drinking Water  
*Address*

**FM-C14-T3-Attachment 18.** Major Source Monitoring Failure under LT2 Rule.

**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 3 NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

### NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Major Source Monitoring Failure under LT2 Rule

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-401 B of the Virginia *Waterworks Regulations* (“Regulations”) for failing to collect any of the (*initial round/second round*) source water monitoring samples for the determination of whether additional treatment is required. The Regulations characterize this alleged violation as a Tier 3 violation.

Section 12VAC5-590-401 B states, in part, “The owner shall conduct an initial and a second round of source water monitoring for each water treatment plant that treats a surface water source, a [groundwater under the direct influence of surface water] source, or both. This monitoring may include sampling for Cryptosporidium, E. coli, and turbidity to determine what level, if any, of additional Cryptosporidium treatment is required. 1. Initial round of source water monitoring. The owner shall conduct the...monitoring on the schedule in subdivision B 3 of this section unless the monitoring avoidance criteria in subdivision B 4 are met.... 2. Second round of source water monitoring. The owner shall conduct a second round of source water monitoring that meets the requirements for monitoring parameters, frequency, and duration described in subdivision B 1 of this section, unless the monitoring exemption criteria...are met.”

(Field staff may want to insert a narrative to further describe this violation situation that resulted in this NOAV. Narrative to include observations, sampling results, dates, times, etc. where appropriate.)

## **Required Actions**

In accordance with Section 12VAC5-590-540 of the Regulations, you are required to issue a Tier 3 public notice (“Notice”) to the consumers in the area served by the waterworks in accordance with the public notification requirements described below:

**Public Notice:** The Notice requires you to notify consumers in the area served **within 12 months** of learning of the violation. This Notice must be handled as follows:

- You must distribute the Notice no later than *(date)*.
- The Notice must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example), you must also use other delivery methods to provide the Notice to these consumers as well. Examples of other methods include, but are not limited to, publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the waterworks.
- You may choose to include the Notice as an enclosure with or as an integral part of your Consumer Confidence Report (CCR) for *(year)* water quality data. To do so, the combined CCR and public Notice must be distributed to consumers by July 1, *(year)*, AND you must take steps to ensure that the CCR and public Notice reach all persons served by the waterworks. This requirement is more stringent than the “good faith effort” requirements for distributing the CCR alone.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved.)*
- You must repeat distribution of the Notice annually for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved.)*

**Draft Notice:** Attached is a draft Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)*



**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at (phone number) or email at (email address).

Sincerely,

Name & Title  
Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 3 Public Notice
2. Certification Form

ec: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director. Administrator/Manager, name of County, County

**NOTICE TO CONSUMERS  
of the Name WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Major Source Monitoring Failure under LT2 Rule**

Our water system recently failed to collect any of the *(initial round/second round)* source water monitoring samples for the determination of whether additional treatment is required. Although this situation does not require that you take immediate action, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation.

During *(compliance period)*, we failed to collect any of the required samples, and therefore we cannot be sure of the quality of your drinking water during that time. *(Field staff may want to further describe the violation, to include specifics such as observations, concentration levels, dates, times, etc. to summarize situational correctness).*

**What should I do?**

There is nothing you need to do at this time. You may continue to drink the water. If a situation arises where the water is no longer safe to drink, you will be notified within 24 hours.

**What is being done?**

*(Field staff to describe the corrective action(s) required by the waterworks owner and when the violation is expected to be resolved.)*

For more information, please contact *(name of contact)* at *(phone number)* or *(mailing address)*.

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by *(system)*. State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Major Source Monitoring Failure under LT2 Rule - (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
*(Community Waterworks)*

By direct (hand) delivery on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_  
\_\_\_\_\_

Provided to the following broadcast media (list: television/radio/website/social media) on

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ (method and date)

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address

**FM-C14-T3-Attachment 19.** Failure to Deliver the Lead Public Education Consumer Notice under LCR.

**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 3 NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

### NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Failure to Deliver the Lead Public Education Consumer Notice under LCR

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-405 D of the Virginia *Waterworks Regulations* (“Regulations”) for failing to deliver a lead public educational consumer notice following the exceedance of the lead action level from recent tap monitoring results. The Regulations characterize this alleged violation as a Tier 3 violation.

Section 12VAC5-590-405 D states, in part, “The owner shall deliver a consumer notice of lead tap water monitoring results to all persons served by the waterworks at sites that are tested... The owner of a waterworks that exceeds the lead [Action Level] based on tap water samples... shall deliver the public education materials contained in subdivision D 1 of this section. The owner of a waterworks that exceeds the lead [Action Level] shall sample the tap water of any customer who requests it in accordance with subdivision D 3 of this section.”

(Field staff may want to insert a narrative to further describe this violation situation in this NOAV. Narrative to include observations, sampling results, dates, times, etc. where appropriate.)

#### **Required Actions**

In accordance with Section 12VAC5-590-540 of the Regulations, you are required to issue a Tier 3 public notice (“Notice”) to the consumers in the area served by the waterworks in accordance with the public notification requirements described below:

**Public Notice:** The Notice requires you to notify consumers in the area served **within 12 months** of learning of the violation. This Notice must be handled as follows:

- You must distribute the Notice no later than *(date)*.
- The Notice must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example), you must also use other delivery methods to provide the Notice to these consumers as well. Examples of other methods include, but are not limited to, publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the waterworks.
- You may choose to include the Notice as an enclosure with or as an integral part of your Consumer Confidence Report (CCR) for *(year)* water quality data. To do so, the combined CCR and public Notice must be distributed to consumers by July 1, *(year)*, AND you must take steps to ensure that the CCR and public Notice reach all persons served by the waterworks. This requirement is more stringent than the “good faith effort” requirements for distributing the CCR alone.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved.)*
- You must repeat distribution of the Notice annually for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved.)*

**Draft Notice:** Attached is a draft Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at (phone number) or email at (email address).

Sincerely,

Name & Title  
Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 3 Public Notice
2. Certification Form

cc: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director.  
Administrator/Manager, name of County, County

**NOTICE TO CONSUMERS  
of the Name WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Failure to Deliver the Lead Public Education Consumer Notice under LCR**

Our water system recently failed to comply with the requirement to deliver a lead public educational consumer notice following the exceedance of the lead action level from recent tap monitoring results. Although this situation does not require that you take immediate action, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation.

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During *(compliance period)*, we failed to deliver the lead public educational consumer notice. *(Field staff may want to further describe the violation, to include specifics such as observations, concentration levels, dates, times, etc. to summarize situational correctness).*

**What should I do?**

There is nothing you need to do at this time. You may continue to drink the water. If a situation arises where the water is no longer safe to drink, you will be notified within 24 hours.

**What is being done?**

*(Field staff to describe the corrective action(s) required by the waterworks owner and when the violation is expected to be resolved.)*

For more information, please contact *(name of contact)* at *(phone number)* or *(mailing address)*.

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by *(system)*. State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Failure to Deliver the Lead Public Education Consumer Notice under LCR -  
(tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
*(Community/Noncommunity Waterworks)*

By direct (hand) delivery on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_

Provided to the following broadcast media *(list: television/radio/website/social media)* on

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ *(method and date)*

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address



**FM-C14-T3-Attachment 20.** Failure to Conduct and Report Follow-Up Routine Monitoring under LCR.

**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 3 NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

**NOTICE OF ALLEGED VIOLATION**

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Failure to Conduct and Report Follow-Up Routine Monitoring under LCR

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and (Choose as warranted: Sections 12VAC5-590-375 B 4 b (1) or 12VAC5-590-375 B 4 b (2) of the Virginia Waterworks Regulations (“Regulations”) for failing to conduct and report follow-up routine monitoring under the Lead and Copper Rule (LCR). The Regulations characterize this alleged violation as a Tier 3 violation.

(Choose the Appropriate Option)

Section 12VAC5-590-375 B 4 b (1) states, in part, “The owner of a large waterworks that installs optimal corrosion control treatment...shall monitor during two consecutive six-month monitoring periods by the date specified in 12VAC5-590-405 A 2 d (5).”

Section 12VAC5-590-375 B 4 b (2) states, in part, “The owner of a small or a medium waterworks that installs optimal corrosion control treatment ...shall monitor during two consecutive six-month monitoring periods by the date specified in 12VAC5-590-405 A 2 e (6).”

(Field staff may want to insert a narrative to further describe this violation situation in this NOAV. Narrative to include observations, sampling results, dates, times, etc. where appropriate.)

## **Required Actions**

In accordance with Section 12VAC5-590-540 of the Regulations, you are required to issue a Tier 3 public notice (“Notice”) to the consumers in the area served by the waterworks in accordance with the public notification requirements described below:

**Public Notice:** The Notice requires you to notify consumers in the area served **within 12 months** of learning of the violation. This Notice must be handled as follows:

- You must distribute the Notice no later than *(date)*.
- The Notice must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example), you must also use other delivery methods to provide the Notice to these consumers as well. Examples of other methods include, but are not limited to, publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the waterworks.
- You may choose to include the Notice as an enclosure with or as an integral part of your Consumer Confidence Report (CCR) for *(year)* water quality data. To do so, the combined CCR and public Notice must be distributed to consumers by July 1, *(year)*, AND you must take steps to ensure that the CCR and public Notice reach all persons served by the waterworks. This requirement is more stringent than the “good faith effort” requirements for distributing the CCR alone.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved.)*
- You must repeat distribution of the Notice annually for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved.)*

**Draft Notice:** Attached is a draft Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at (phone number) or email at (email address).

Sincerely,

Name & Title  
Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 3 Public Notice
2. Certification Form

ec: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director. Administrator/Manager, name of County, County

**NOTICE TO CONSUMERS  
of the Name WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Failure to Conduct and Report Follow-Up Routine Monitoring under LCR**

Our water system recently violated a drinking water regulation. Although this situation does not require that you take immediate action, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation. During the *(monitoring period)*, our waterworks failed to conduct and report on the follow-up routine monitoring under the Lead and Copper Rule (LCR). *(Field staff may want to further describe the violation, to include specifics such as observations, dates, times, etc. to summarize situational correctness).*

**What should I do?**

There is nothing you need to do at this time. You may continue to drink the water. If a situation arises where the water is no longer safe to drink, you will be notified within 24 hours.

**What is being done?**

*(Field staff to describe the corrective action(s) required by the waterworks owner and when the violation is expected to be resolved.)*

For more information, please contact *(name of contact)* at *(phone number)* or *(mailing address)*.

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by *(system)*. State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Failure to Conduct and Report Follow-Up Routine Monitoring under LCR - (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
(Community/Noncommunity Waterworks)

By direct (hand) delivery on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_

Provided to the following broadcast media (list: television/radio/website/social media) on

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ (method and date)

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address

**FM-C14-T3-Attachment 21.** Failure to Conduct Initial Pb and Cu Tap Sampling under LCR.

**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 3 NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined, and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

## NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner

Address 1

Address 2

City, State, Zip

Re: Failure to Conduct Initial Lead and Copper Tap Sampling under LCR

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-375 A of the Virginia *Waterworks Regulations* (“Regulations”) for failing to conduct the initial tap monitoring for lead and copper under the Lead and Copper Rule (LCR). The Regulations characterize this alleged violation as a Tier 3 violation.

Section 12VAC5-590-375 A states, in part, “The owner of a community waterworks or a NTNC shall monitor for lead and copper in tap water..., water quality (corrosion) parameters in the distribution system and at entry points..., and lead and copper in water supplies....”

(Field staff may want to insert a narrative to further describe this violation situation that resulted in this NOAV, to include specifics such as observations, concentration levels, dates, times, etc. where appropriate).

### **Required Actions**

In accordance with Section 12VAC5-590-540 of the Regulations, you are required to issue a Tier 3 public notice (“Notice”) to the consumers in the area served by the waterworks in accordance with the public notification requirements described below:

**Public Notice:** The Notice requires you to notify consumers in the area served **within 12 months** of learning of the violation. This Notice must be handled as follows:

- You must distribute the Notice no later than *(date)*.
- The Notice must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example), you must also use other delivery methods to provide the Notice to these consumers as well. Examples of other methods include, but are not limited to, publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the waterworks.
- You may choose to include the Notice as an enclosure with or as an integral part of your Consumer Confidence Report (CCR) for *(year)* water quality data. To do so, the combined CCR and public Notice must be distributed to consumers by July 1, *(year)*, AND you must take steps to ensure that the CCR and public Notice reach all persons served by the waterworks. This requirement is more stringent than the “good faith effort” requirements for distributing the CCR alone.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved.)*
- You must repeat distribution of the Notice annually for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved.)*

**Draft Notice:** Attached is a draft Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at (phone number) or email at (email address).

Sincerely,

Name & Title

Field office name

ABC.xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 3 Public Notice
2. Certification Form

cc: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director. Administrator/Manager, name of County, County



**NOTICE TO CONSUMERS  
of the Name WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Failure to Conduct Initial Lead and Copper Tap Sampling under LCR**

Our water system recently violated a drinking water regulation. Although this situation does not require that you take immediate action, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation. During the *(monitoring period)*, our waterworks failed to conduct the initial lead and copper tap monitoring under the Lead and Copper Rule (LCR). *(Field staff may want to further describe the violation, to include specifics such as observations, dates, times, etc. to summarize situational correctness).*

**What should I do?**

There is nothing you need to do at this time. You may continue to drink the water. If a situation arises where the water is no longer safe to drink, you will be notified within 24 hours.

**What is being done?**

*(Field staff to describe the corrective action(s) required by the waterworks owner and when the violation is expected to be resolved.)*

For more information, please contact *(name of contact)* at *(phone number)* or *(mailing address)*.

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by *(system)*. State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Failure to Conduct Initial Lead and Copper Tap Sampling under LCR - (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
*(Community/NTNC Waterworks)*

By direct (hand) delivery on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_

Provided to the following broadcast media (list: television/radio/website/social media) on

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ (method and date)

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address

**FM-C14-T3-Attachment 22.** Minor Additional Triggered Monitoring Failure under GWR.  
**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 3 NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

### NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Minor Additional Triggered Monitoring Failure under GWR

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-379 B 1 c of the Virginia *Waterworks Regulations* (“Regulations”) for failing to collect all of the five required additional groundwater source samples within 24 hours of being notified, following an *E. coli*-positive triggered source water sample on (date). The Regulations characterize this alleged violation as a Tier 3 violation.

Section 12VAC5-379 B 1 c states, in part, “If an *E. coli*-positive triggered source water sample...is not invalidated..., then the groundwater system owner shall provide public notification and collect five additional source water samples from the same source within 24 hours of being notified of the *E. coli*-positive sample.”

(Field staff may want to insert a narrative to further describe this violation situation in this NOAV. Narrative to include observations, sampling results, dates, times, etc. where appropriate.)

#### **Required Actions**

In accordance with Section 12VAC5-590-540 of the Regulations, you are required to issue a Tier 3 public notice (“Notice”) to the consumers in the area served by the waterworks in accordance with the public notification requirements described below:  
addresses

**Public Notice:** The Notice requires you to notify consumers in the area served **within 12 months** of learning of the violation. This Notice must be handled as follows:

- You must distribute the Notice no later than *(date)*.
- The Notice must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example), you must also use other delivery methods to provide the Notice to these consumers as well. Examples of other methods include, but are not limited to, publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the waterworks.
- You may choose to include the Notice as an enclosure with or as an integral part of your Consumer Confidence Report (CCR) for *(year)* water quality data. To do so, the combined CCR and public Notice must be distributed to consumers by July 1, *(year)*, AND you must take steps to ensure that the CCR and public Notice reach all persons served by the waterworks. This requirement is more stringent than the “good faith effort” requirements for distributing the CCR alone.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved.)*
- You must repeat distribution of the Notice annually for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved.)*

**Draft Notice:** Attached is a draft Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at (phone number) or email at (email address).

Sincerely,

Name & Title  
Field office name

ABC.xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 3 Public Notice
2. Certification Form

cc: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director. Administrator/Manager, name of County, County

**NOTICE TO CONSUMERS  
of the Name WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Minor Additional Triggered Monitoring Failure under GWR**

Our water system recently violated a drinking water regulation. Although this situation does not require that you take immediate action, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation. During the *(monitoring period)*, our waterworks failed to collect all of the five required additional groundwater source samples within 24 hours of being notified, following an *E. coli*-positive triggered source water sample on *(date)*. *(Field staff may want to further describe the violation, to include specifics such as observations, dates, times, etc. to summarize situational correctness).*

**What should I do?**

There is nothing you need to do at this time. You may continue to drink the water. If a situation arises where the water is no longer safe to drink, you will be notified within 24 hours.

**What is being done?**

*(Field staff to describe the corrective action(s) required by the waterworks owner and when the violation is expected to be resolved.)*

For more information, please contact *(name of contact)* at *(phone number)* or *(mailing address)*.

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by *(system)*. State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Minor Additional Triggered Monitoring Failure under GWR - (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
(Community/Noncommunity Waterworks)

By direct (hand) delivery on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_

Provided to the following broadcast media (list: television/radio/website/social media) on

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ (method and date)

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address

**FM-C14-T3-Attachment 23.** Major Additional Triggered Monitoring Failure under GWR.

**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 3 NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1" top, bottom, and side margins.

### NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner

Address 1

Address 2

City, State, Zip

Re: Major Additional Triggered Monitoring Failure under GWR

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-379 B 1 c of the Virginia *Waterworks Regulations* ("Regulations") for failing to collect any of the five required additional groundwater source samples within 24 hours of being notified, following an *E. coli*-positive triggered source water sample on (date). The Regulations characterize this alleged violation as a Tier 3 violation.

Section 12VAC5-379 B 1 c states, in part, "If an *E. coli*-positive triggered source water sample...is not invalidated..., then the groundwater system owner shall provide public notification and collect five additional source water samples from the same source within 24 hours of being notified of the *E. coli*-positive sample."

(Field staff may want to insert a narrative to further describe this violation situation in this NOAV. Narrative to include observations, sampling results, dates, times, etc. where appropriate.)

#### **Required Actions**

In accordance with Section 12VAC5-590-540 of the Regulations, you are required to issue a Tier 3 public notice ("Notice") to the consumers in the area served by the waterworks in accordance with the public notification requirements described below:  
addresses



**Public Notice:** The Notice requires you to notify consumers in the area served **within 12 months** of learning of the violation. This Notice must be handled as follows:

- You must distribute the Notice no later than *(date)*.
- The Notice must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example), you must also use other delivery methods to provide the Notice to these consumers as well. Examples of other methods include, but are not limited to, publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the waterworks.
- You may choose to include the Notice as an enclosure with or as an integral part of your Consumer Confidence Report (CCR) for *(year)* water quality data. To do so, the combined CCR and public Notice must be distributed to consumers by July 1, *(year)*, AND you must take steps to ensure that the CCR and public Notice reach all persons served by the waterworks. This requirement is more stringent than the “good faith effort” requirements for distributing the CCR alone.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved.)*
- You must repeat distribution of the Notice annually for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved.)*

**Draft Notice:** Attached is a draft Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at (phone number) or email at (email address).

Sincerely,

Name & Title  
Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 3 Public Notice
2. Certification Form

ec: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director.  
Administrator/Manager, name of County, County

**NOTICE TO CONSUMERS  
of the Name WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Major Additional Triggered Monitoring Failure under GWR**

Our water system recently failed to comply with the requirement to collect any of the five required additional groundwater source water samples following an *E. coli*-positive triggered source water sample on (date). Although this situation does not require that you take immediate action, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation.

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During (compliance period), we did not collect any of the required samples, and therefore we cannot be sure of the quality of your drinking water during that time. (Field staff may want to include additional clarifying details).

**What should I do?**

There is nothing you need to do at this time. You may continue to drink the water. If a situation arises where the water is no longer safe to drink, you will be notified within 24 hours.

**What is being done?**

(Field staff to describe the corrective action(s) required by the waterworks owner and when the violation is expected to be resolved.)

For more information, please contact (name of contact) at (phone number) or (mailing address).

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by (system). State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Major Additional Triggered Monitoring Failure under GWR - (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
*(Community/Noncommunity Waterworks)*

By direct (hand) delivery on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_

Provided to the following broadcast media *(list: television/radio/website/social media)* on

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ *(method and date)*

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
*Name* Field Office, Office of Drinking Water  
*Address*

**FM-C14-T3-Attachment 24.** Failure to Notify State When System Fails to Meet State-Specified Requirements under GWR.

**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 3 NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

### NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Failure to Notify State When System Fails to Meet State-Specified Requirements under GWR

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-530 K 1 of the Virginia *Waterworks Regulations* (“Regulations”) for failing to notify the Virginia Department of Health (VDH) by the end of the next business day any time the system fails to meet any VDH-specified requirements. The Regulations characterize this alleged violation as a Tier 3 violation.

Section 12VAC5-590-530 K 1 states, in part, “The owner conducting compliance monitoring... shall notify the [Virginia Department of Health] as soon as practical, but no later than the next business day, whenever the groundwater system fails to meet the [Virginia Department of Health]-specified minimum residual disinfectant concentration for more than four hours.”

(Field staff may want to insert a narrative to further describe this violation situation in this NOAV. Narrative to include observations, sampling results, dates, times, etc. where appropriate.)

#### **Required Actions**

In accordance with Section 12VAC5-590-540 of the Regulations, you are required to issue a Tier 3 public notice (“Notice”) to the consumers in the area served by the waterworks in accordance with the public notification requirements described below:

**Public Notice:** The Notice requires you to notify consumers in the area served **within 12 months** of learning of the violation. This Notice must be handled as follows:

- You must distribute the Notice no later than *(date)*.
- The Notice must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example), you must also use other delivery methods to provide the Notice to these consumers as well. Examples of other methods include, but are not limited to, publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the waterworks.
- You may choose to include the Notice as an enclosure with or as an integral part of your Consumer Confidence Report (CCR) for *(year)* water quality data. To do so, the combined CCR and public Notice must be distributed to consumers by July 1, *(year)*, AND you must take steps to ensure that the CCR and public Notice reach all persons served by the waterworks. This requirement is more stringent than the “good faith effort” requirements for distributing the CCR alone.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved.)*
- You must repeat distribution of the Notice annually for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved.)*

**Draft Notice:** Attached is a draft Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at (phone number) or email at (email address).

Sincerely,

Name & Title  
Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 3 Public Notice
2. Certification Form

ec: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director. Administrator/Manager, name of County, County

**NOTICE TO CONSUMERS  
of the Name WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Failure to Notify State When System Fails to Meet State-Specified Requirements under  
GWR**

Our water system recently failed to notify the State by the end of the next business day any time the system fails to meet any State-specified requirements. Although this situation does not require that you take immediate action, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation.

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During *(compliance period)*, we failed to notify the State by the end of the next business day any time the system fails to meet any State-specified requirements, and therefore we cannot be sure of the quality of our drinking water during that time. *(Field staff may want to further describe the violation, to include specifics such as observations, concentration levels, dates, times, etc. to summarize situational correctness).*

**What should I do?**

There is nothing you need to do at this time. You may continue to drink the water. If a situation arises where the water is no longer safe to drink, you will be notified within 24 hours.

**What is being done?**

*(Field staff to describe the corrective action(s) required by the waterworks owner and when the violation is expected to be resolved.)*

For more information, please contact *(name of contact)* at *(phone number)* or *(mailing address)*.

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by *(system)*. State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.



SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Failure to Notify State When System Fails to Meet State-Specified Requirements under GWR - (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
(Community Waterworks)

By direct (hand) delivery on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_

Provided to the following broadcast media (list: television/radio/website/social media) on

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ (method and date)

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address

**FM-C14-T3-Attachment 25.** Failure to Submit the Microbial Toolbox Report.

**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 3 NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

### NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Failure to Submit the Microbial Toolbox Report

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-531 B 5 of the Virginia *Waterworks Regulations* (“Regulations”) for failing to submit the microbial toolbox report identifying the treatment options for your waterworks. The Regulations characterize this alleged violation as a Tier 3 violation.

Section 12VAC5-590-531 B 5 states, in part, “The owner shall report to the [Virginia Department of Health]...any microbial toolbox options used to comply with treatment requirements.... Alternatively, the [Virginia Department of Health] may approve a waterworks to certify operation within required parameters for treatment credit rather than reporting monthly operational data for toolbox options.”

(Field staff may want to insert a narrative to further describe this violation situation in this NOAV. Narrative to include observations, sampling results, dates, times, etc. where appropriate)

#### **Required Actions**

In accordance with Section 12VAC5-590-540 of the Regulations, you are required to issue a Tier 3 public notice (“Notice”) to the consumers in the area served by the waterworks in accordance with the public notification requirements described below:  
addresses

**Public Notice:** The Notice requires you to notify consumers in the area served within 12 months of learning of the violation. This Notice must be handled as follows:

- You must distribute the Notice no later than *(date)*.
- The Notice must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example), you must also use other delivery methods to provide the Notice to these consumers as well. Examples of other methods include, but are not limited to, publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the waterworks.
- You may choose to include the Notice as an enclosure with or as an integral part of your Consumer Confidence Report (CCR) for *(year)* water quality data. To do so, the combined CCR and public Notice must be distributed to consumers by July 1, *(year)*, AND you must take steps to ensure that the CCR and public Notice reach all persons served by the waterworks. This requirement is more stringent than the “good faith effort” requirements for distributing the CCR alone.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved.)*
- You must repeat distribution of the Notice annually for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved.)*

**Draft Notice:** Attached is a draft Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at (phone number) or email at (email address).

Sincerely,

Name & Title  
Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 3 Public Notice
2. Certification Form

ec: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director. Administrator/Manager, name of County, County

**NOTICE TO CONSUMERS  
of the Name WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Failure to Submit the Microbial Toolbox Report**

Our water system recently failed to comply with the requirement to submit the microbial toolbox report identifying the treatment options for our waterworks. Although this situation does not require that you take immediate action, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation.

We are required to identify the treatment options for our waterworks to meet the compliance requirements of the extended Surface Water Treatment Rules. During *(compliance period)*, we failed to submit the microbial toolbox report identifying these treatment options. *(Field staff may want to further describe the violation, to include additional specifics such as other observations to summarize situational correctness).*

**What should I do?**

There is nothing you need to do at this time. You may continue to drink the water. If a situation arises where the water is no longer safe to drink, you will be notified within 24 hours.

**What is being done?**

*(Field staff to describe the corrective action(s) required by the waterworks owner and when the violation is expected to be resolved.)*

For more information, please contact *(name of contact)* at *(phone number)* or *(mailing address)*.

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by *(system)*. State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Failure to Submit the Microbial Toolbox Report - (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
(Community Waterworks)

By direct (hand) delivery on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_

Provided to the following broadcast media (list: television/radio/website/social media) on

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ (method and date)

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address

**FM-C14-T3-Attachment 26.** Failure to Submit the Bin Classification and Treatment Requirements Report under LT2 Rule.

**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 2 NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

### NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Failure to Submit the Bin Classification and Treatment Requirements Report under LT2 Rule

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-401 D 1 d of the Virginia *Waterworks Regulations* (“Regulations”) for failing to submit the bin classification determination and treatment requirements report after source water monitoring. The Regulations characterize this alleged violation as a Tier 2 treatment technique violation.

Section 12VAC5-590-401 D 1 d states, “Reporting of bin classifications. (1) The owner shall report the initial bin classification under subdivision D 1 b of this section to the [Virginia Department of Health] for approval no later than six months after the waterworks is required to complete the initial source water monitoring based on the schedule in subdivision B 3 of this section. (2) The owner shall report the bin classification under subdivision D 1 c of this section to the [Virginia Department of Health] for approval no later than six months after the owner is required to complete the second round of source water monitoring based on the schedule in subdivision D 1 a (3) of this section. (3) The bin classification report to the [Virginia Department of Health] shall include a summary of source water monitoring data and the calculation procedure used to determine bin classification.”

Section 12VAC5-590-401 D 1 e states, “Failure to comply with the conditions of subdivision D 1 d of this section is a violation of the treatment technique requirement.”

(Field staff may want to insert a narrative to further describe this violation situation that resulted in this NOAV. Narrative to include observations, sampling results, dates, times, etc. where appropriate.)

## **Required Actions**

In accordance with Section 12VAC5-590-540 of the Regulations, you are required to issue a Tier 2 public notice (“Notice”) to the consumers in the area served by the waterworks in accordance with the public notification requirements described below:

**Public Notice:** The Tier 2 Notice requires you to notify consumers in the area served **within 30 days** of learning of the violation. This Notice must be handled as follows:

- You must provide a Notice to consumers no later than *(date)*; (i.e., 30 days from date of letter or 30 days from when owner was apprised of the violation, whichever comes first.)
- Your Notice to consumers must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example) you must also use other delivery methods to provide notice to these consumers as well. Examples of other methods include (but are not limited to) notice publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the system.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved).*
- You must repeat distribution of the Notice every three months, for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved)*

**Draft Notice:** Attached is a draft Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil



charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at (phone number) or email at (email address).

Sincerely,

Name & Title

Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 2 Public Notice
2. Certification Form

cc: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director. Administrator/Manager, name of County, County

**NOTICE TO CONSUMERS  
of the Name WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Failure to Submit the Bin Classification and Treatment Requirements Report under LT2  
Rule**

Our water system recently failed to comply with the requirement to submit the bin classification determination and treatment requirements report after source water monitoring. Although this situation does not require that you take immediate action, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation.

During *(compliance period)*, we failed to submit the bin classification determination and treatment requirements report after the source water monitoring. *(Field staff may want to further describe the violation, to include additional specifics such as observations, concentration levels, dates, times, etc. to summarize situational correctness).*

**What should I do?**

There is nothing you need to do at this time. You may continue to drink the water. If a situation arises where the water is no longer safe to drink, you will be notified within 24 hours.

**What is being done?**

*(Field staff to describe the corrective action(s) required by the waterworks owner and when the violation is expected to be resolved.)*

For more information, please contact *(name of contact)* at *(phone number)* or *(mailing address)*.

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by *(system)*. State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Failure to Submit the Bin Classification and Treatment Requirements Report under LT2 Rule - (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
*(Community Waterworks)*

By direct (hand) delivery on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_  
\_\_\_\_\_

Provided to the following broadcast media (list: television/radio/website/social media) on

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ (method and date)

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address

**FM-C14-T3-Attachment 27.** Failure to Submit an OEL Report for TTHMs.

**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 3 NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

### NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Failure to Submit an Operational Evaluation Level (OEL) Report for TTHMs

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-384 B 1 d of the Virginia *Waterworks Regulations* (“Regulations”) for failing to submit an operational evaluation level (OEL) report for exceeding analytical values for total trihalomethanes (TTHMs). Per our letter to you dated (date), this waterworks was required to submit an OEL Report to this office by (date). The Regulations characterize this alleged violation as a Tier 3 violation.

Section 12VAC5-590-384 B 1 d states, in part, “A waterworks has exceeded the operational evaluation level at any monitoring location where the sum of the two previous quarters’ TTHM results plus twice the current quarter’s TTHM result, divided by four to determine an average, exceeds 0.080 mg/L....The owner of a waterworks that exceeds the operational evaluation level shall conduct an operational evaluation and submit a written report of the evaluation to the [Virginia Department of Health] on a form approved by the [Virginia Department of Health] no later than 90 days after being notified of the analytical result that caused the waterworks to exceed the operational evaluation level. The written report shall be made available to the public upon request.”

(Field staff may want to insert a narrative to further describe this violation situation that resulted in this NOAV, to include specifics such as observations, concentration levels, dates, times, etc. where appropriate).

## **Required Actions**

In accordance with Section 12VAC5-590-540 of the Regulations, you are required to issue a Tier 3 public notice (“Notice”) to the consumers in the area served by the waterworks in accordance with the public notification requirements described below:

**Public Notice:** The Notice requires you to notify consumers in the area served **within 12 months** of learning of the violation. This Notice must be handled as follows:

- You must distribute the Notice no later than *(date)*.
- The Notice must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example), you must also use other delivery methods to provide the Notice to these consumers as well. Examples of other methods include, but are not limited to, publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the waterworks.
- You may choose to include the Notice as an enclosure with or as an integral part of your Consumer Confidence Report (CCR) for *(year)* water quality data. To do so, the combined CCR and public Notice must be distributed to consumers by July 1, *(year)*, AND you must take steps to ensure that the CCR and public Notice reach all persons served by the waterworks. This requirement is more stringent than the “good faith effort” requirements for distributing the CCR alone.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved.)*
- You must repeat distribution of the Notice annually for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved.)*

**Draft Notice:** Attached is a draft Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action; e.g., choose from text below.)*

In order to evaluate the possible causes for the OEL exceedance which occurred during the (1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup>, 4<sup>th</sup>) quarter of (year) and to minimize the potential of future OEL and/or Maximum Contaminant Level exceedances, we request that you submit the report within 30 days of receipt of this Notice.

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27 and 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at (phone number) or email at (email address).

Sincerely,

Name & Title  
Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 3 Public Notice
2. Certification Form

cc: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director. Administrator/Manager, name of County, County

**NOTICE TO CONSUMERS  
of the Name WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Failure to Submit an Operational Evaluation Level (OEL) Report for TTHMs**

Our water system recently failed to comply with the requirement to submit an operational evaluation level (OEL) report when waterworks operations show that total trihalomethanes (TTHMs) analytical results at monitoring location(s) have been exceeded. Although this situation does not require that you take immediate action, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation.

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During *(compliance period)*, we did not submit the OEL report indicating that our waterworks operations have shown that the total trihalomethanes (TTHM) analytical results have exceeded 0.080 mg/L, and therefore we cannot be sure of the quality of your drinking water during that time. *(Field staff may want to include additional clarifying details).*

**What should I do?**

There is nothing you need to do at this time. You may continue to drink the water. If a situation arises where the water is no longer safe to drink, you will be notified within 24 hours.

**What is being done?**

*(Field staff to describe the corrective action(s) required by the waterworks owner and when the violation is expected to be resolved.)*

For more information, please contact *(name of contact)* at *(phone number)* or *(mailing address)*.

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by *(system)*. State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Failure to Submit an Operational Evaluation Level (OEL) Report for TTHMs - (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
*(Community Waterworks)*

By direct (hand) delivery on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_  
\_\_\_\_\_

Provided to the following broadcast media (list: television/radio/website/social media) on

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ (method and date)

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address



**FM-C14-T3-Attachment 28.** Failure to Submit an OEL Report for HAA5s.

**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 3 NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined, and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

### NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Failure to Submit an Operational Evaluation Level (OEL) Report for HAA5s

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-384 B 1 d of the Virginia *Waterworks Regulations* (“Regulations”) for failing to submit an operational evaluation level (OEL) report for exceeding analytical values for haloacetic acids (five) (HAA5). Per our letter to you dated (date), this waterworks was required to submit an OEL Report to this office by (date). The Regulations characterize this alleged violation as a Tier 3 violation.

Section 12VAC5-590-384 B 1 d states, in part, “A waterworks has exceeded the operational evaluation level at any monitoring location...where the sum of the two previous quarters’ HAA5 results plus twice the current quarter’s HAA5 result, divided by four to determine an average, exceeds 0.060 mg/L.... The owner of a waterworks that exceeds the operational evaluation level shall conduct an operational evaluation and submit a written report of the evaluation to the [Virginia Department of Health] on a form approved by the [Virginia Department of Health] no later than 90 days after being notified of the analytical result that caused the waterworks to exceed the operational evaluation level. The written report shall be made available to the public upon request.”

(Field staff may want to insert a narrative to further describe this violation situation that resulted in this NOAV, to include specifics such as observations, concentration levels, dates, times, etc. where appropriate).

## **Required Actions**

In accordance with Section 12VAC5-590-540 of the Regulations, you are required to issue a Tier 3 public notice (“Notice”) to the consumers in the area served by the waterworks in accordance with the public notification requirements described below:

**Public Notice:** The Notice requires you to notify consumers in the area served **within 12 months** of learning of the violation. This Notice must be handled as follows:

- You must distribute the Notice no later than *(date)*.
- The Notice must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example), you must also use other delivery methods to provide the Notice to these consumers as well. Examples of other methods include, but are not limited to, publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the waterworks.
- You may choose to include the Notice as an enclosure with or as an integral part of your Consumer Confidence Report (CCR) for *(year)* water quality data. To do so, the combined CCR and public Notice must be distributed to consumers by July 1, *(year)*, AND you must take steps to ensure that the CCR and public Notice reach all persons served by the waterworks. This requirement is more stringent than the “good faith effort” requirements for distributing the CCR alone.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved.)*
- You must repeat distribution of the Notice annually for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved.)*

**Draft Notice:** Attached is a draft Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action; e.g., choose from text below.)*

In order to evaluate the possible causes for the OEL exceedance which occurred during the (1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup>, 4<sup>th</sup>) quarter of (year) and to minimize the potential of future OEL and/or Maximum Contaminant Level exceedances, we request that you submit the report within 30 days of receipt of this Notice.

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at (phone number) or email at (email address).

Sincerely,

Name & Title  
Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 3 Public Notice
2. Certification Form

cc: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director. Administrator/Manager, name of County, County

**NOTICE TO CONSUMERS  
of the Name WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Failure to Submit an Operational Evaluation Level (OEL) Report for HAA5s**

Our water system recently failed to comply with the requirement to submit an operational evaluation level (OEL) report when waterworks operations show that the haloacetic acids (five) (HAA5s) analytical results at monitoring location(s) have been exceeded. Although this situation does not require that you take immediate action, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation.

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During *(compliance period)*, we did not submit the OEL report indicating that our waterworks operations have shown that the haloacetic acids (five) (HAA5) analytical results have exceeded 0.060 mg/L, and therefore we cannot be sure of the quality of your drinking water during that time. *(Field staff may want to include additional clarifying details).*

**What should I do?**

There is nothing you need to do at this time. You may continue to drink the water. If a situation arises where the water is no longer safe to drink, you will be notified within 24 hours.

**What is being done?**

*(Field staff to describe the corrective action(s) required by the waterworks owner and when the violation is expected to be resolved.)*

For more information, please contact *(name of contact)* at *(phone number)* or *(mailing address)*.

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by *(system)*. State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Failure to Submit an Operational Evaluation Level (OEL) Report for HAA5s - (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
*(Community Waterworks)*

By direct (hand) delivery on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_

Provided to the following broadcast media *(list: television/radio/website/social media)* on

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ *(method and date)*

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
*Name* Field Office, Office of Drinking Water  
*Address*

**FM-C14-T3-Attachment 29.** Failure to Report an *E. coli* PMCL Violation.

**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 3 NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

## NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner

Address 1

Address 2

City, State, Zip

Re: Failure to Report an *E.coli* Primary Maximum Contaminant Level (PMCL) Violation

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-530 C 3 of the Virginia *Waterworks Regulations* (“Regulations”) for failing to report an *E. coli* PMCL violation. The Regulations characterize this alleged violation as a Tier 3 violation.

Section 12VAC5-590-530 C 3 states, “An *E. coli* PMCL violation shall be reported by the owner to the [Virginia Department of Health] by the end of the day when the owner was notified of the test result, unless the [Virginia Department of Health] is closed, in which case the [Virginia Department of Health] shall be notified before the end of the next business day.”

(Field staff may want to insert a narrative to further describe this violation situation in this NOAV. Narrative to include observations, sampling results, dates, times, etc. where appropriate.)

### **Required Actions**

In accordance with Section 12VAC5-590-540 of the Regulations, you are required to issue a Tier 3 public notice (“Notice”) to the consumers in the area served by the waterworks in accordance with the public notification requirements described below:

**Public Notice:** The Notice requires you to notify consumers in the area served **within 12 months** of learning of the violation. This Notice must be handled as follows:

- You must distribute the Notice no later than (date).

- The Notice must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example), you must also use other delivery methods to provide the Notice to these consumers as well. Examples of other methods include, but are not limited to, publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the waterworks.
- You may choose to include the Notice as an enclosure with or as an integral part of your Consumer Confidence Report (CCR) for *(year)* water quality data. To do so, the combined CCR and public Notice must be distributed to consumers by July 1, *(year)*, AND you must take steps to ensure that the CCR and public Notice reach all persons served by the waterworks. This requirement is more stringent than the “good faith effort” requirements for distributing the CCR alone.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved.)*
- You must repeat distribution of the Notice annually for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved.)*

**Draft Notice:** Attached is a draft Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at *(phone number)* or email at *(email address)*.

Sincerely,

Name & Title  
Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 3 Public Notice
2. Certification Form

cc: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director.  
Administrator/Manager, name of County, County



**NOTICE TO CONSUMERS  
of the Name WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Failure to Report an *E.coli* Primary Maximum Contaminant Level (PMCL) Violation**

Our water system recently failed to comply with a reporting requirement. Although this situation does not require that you take immediate action, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation.

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During *(compliance period)*, we failed to report the occurrence of an *E. coli* PMCL violation, and therefore we cannot be sure of the quality of your drinking water during that time. *(Field staff may want to further describe the violation, to include specifics such as other observations, dates, times, etc. to summarize situational correctness.)*

**What should I do?**

There is nothing you need to do at this time. You may continue to drink the water. If a situation arises where the water is no longer safe to drink, you will be notified within 24 hours.

**What is being done?**

*(Field staff to describe the corrective action(s) required by the waterworks owner and when the violation is expected to be resolved.)*

For more information, please contact *(name of contact)* at *(phone number)* or *(mailing address)*.

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by *(system)*. State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Failure to Report an *E. coli* PMCL Violation - (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
(Community/Noncommunity Waterworks)

By direct (hand) delivery on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_  
\_\_\_\_\_

Provided to the following broadcast media (list: television/radio/website/social media) on

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ (method and date)

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

ATTN: COMPLIANCE SPECIALIST  
Name Field Office, Office of Drinking Water  
Address

**FM-C14-T3-Attachment 30.** Failure to Report the Occurrence of an EC+ Sample Result.

**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 3 NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

## NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner

Address 1

Address 2

City, State, Zip

Re: Failure to Report the Occurrence of an *E. coli*-Positive Sample Result

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-530 C 2 of the Virginia *Waterworks Regulations* (“Regulations”) for failing to report the occurrence of an *E. coli*-positive sample result. The Regulations characterize this alleged violation as a Tier 3 violation.

Section 12VAC5-590-530 C 2 states, in part, “Microbial contamination... indicating the presence of *E. coli* or waterborne pathogens, shall be reported by the owner to the [Virginia Department of Health] by the end of the day when the owner was notified of the test result, unless the [Virginia Department of Health] is closed, in which case the [Virginia Department of Health] shall be notified before the end of the next business day.”

(Field staff may want to insert a narrative to further describe this violation situation in this NOAV. Narrative to include observations, sampling results, dates, times, etc. where appropriate.)

### **Required Actions**

In accordance with Section 12VAC5-590-540 of the Regulations, you are required to issue a Tier 3 public notice (“Notice”) to the consumers in the area served by the waterworks in accordance with the public notification requirements described below:

**Public Notice:** The Notice requires you to notify consumers in the area served **within 12 months** of learning of the violation. This Notice must be handled as follows:

- You must distribute the Notice no later than *(date)*.
- The Notice must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example), you must also use other delivery methods to provide the Notice to these consumers as well. Examples of other methods include, but are not limited to, publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the waterworks.
- You may choose to include the Notice as an enclosure with or as an integral part of your Consumer Confidence Report (CCR) for *(year)* water quality data. To do so, the combined CCR and public Notice must be distributed to consumers by July 1, *(year)*, AND you must take steps to ensure that the CCR and public Notice reach all persons served by the waterworks. This requirement is more stringent than the “good faith effort” requirements for distributing the CCR alone.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved.)*
- You must repeat distribution of the Notice annually for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved.)*

**Draft Notice:** Attached is a draft Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at (phone number) or email at (email address).

Sincerely,

Name & Title

Field office name

ABC.xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 3 Public Notice
2. Certification Form

cc: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director. Administrator/Manager, name of County, County

**NOTICE TO CONSUMERS  
of the Name WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Failure to Report the Occurrence of an *E. coli*-Positive Sample Result**

Our water system recently failed to comply with a reporting requirement. Although this situation does not require that you take immediate action, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation.

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During (*compliance period*), we failed to report the occurrence of an *E. coli*-positive sample result, and therefore we cannot be sure of the quality of your drinking water during that time. (*Field staff may want to further describe the violation, to include additional specifics such as observations, dates, times, etc. to summarize situational correctness.*)

**What should I do?**

There is nothing you need to do at this time. You may continue to drink the water. If a situation arises where the water is no longer safe to drink, you will be notified within 24 hours.

**What is being done?**

*(Field staff to describe the corrective action(s) required by the waterworks owner and when the violation is expected to be resolved.)*

For more information, please contact (*name of contact*) at (*phone number*) or (*mailing address*).

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by (*system*). State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Failure to Report the Occurrence of an *E. coli*-Positive Sample Result - (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
(Community/Noncommunity Waterworks)

By direct (hand) delivery on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_

Provided to the following broadcast media (list: television/radio/website/social media) on

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ (method and date)

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

ATTN: COMPLIANCE SPECIALIST  
Name Field Office, Office of Drinking Water  
Address

**FM-C14-T3-Attachment 31.** Failure to Provide an OCCT Recommendation/Study.

**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 3 NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

### NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner

Address 1

Address 2

City, State, Zip

Re: Failure to Provide an Optimal Corrosion Control Treatment (OCCT) Recommendation/Study

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-405 A 1 c (6) of the Virginia *Waterworks Regulations* (“Regulations”) for failing to provide an optimal corrosion control treatment (OCCT) recommendation/study following exceedance of the lead action level after recent tap monitoring results. The Regulations characterize this alleged violation as a Tier 3 violation.

Section 12VAC5-590-405 A 1 c (6) states, in part, “On the basis of an analysis of the data generated during each evaluation, the owner shall propose in writing to the [Virginia Department of Health] that the treatment option resulting from the corrosion control studies constitutes optimal corrosion control treatment for that waterworks. The owner shall provide a rationale for the recommendation along with all supporting documentation....”

(Field staff may want to insert a narrative to further describe this violation situation in this NOAV. Narrative to include observations, sampling results, dates, times, etc. where appropriate.)

### **Required Actions**

In accordance with Section 12VAC5-590-540 of the Regulations, you are required to issue a Tier 3 public notice (“Notice”) to the consumers in the area served by the waterworks in accordance with the public notification requirements described below:

**Public Notice:** The Notice requires you to notify consumers in the area served **within 12 months** of learning of the violation. This Notice must be handled as follows:



- You must distribute the Notice no later than *(date)*.
- The Notice must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example), you must also use other delivery methods to provide the Notice to these consumers as well. Examples of other methods include, but are not limited to, publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the waterworks.
- You may choose to include the Notice as an enclosure with or as an integral part of your Consumer Confidence Report (CCR) for *(year)* water quality data. To do so, the combined CCR and public Notice must be distributed to consumers by July 1, *(year)*, AND you must take steps to ensure that the CCR and public Notice reach all persons served by the waterworks. This requirement is more stringent than the “good faith effort” requirements for distributing the CCR alone.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved.)*
- You must repeat distribution of the Notice annually for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved.)*

**Draft Notice:** Attached is a draft Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at (phone number) or email at (email address).

Sincerely,

Name & Title  
Field office name

ABC.xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 3 Public Notice
2. Certification Form

ecc: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director. Administrator/Manager, name of County, County

NOTICE TO CONSUMERS  
of the Name WATERWORKS

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

**Failure to Provide an Optimal Corrosion Control Treatment (OCCT)  
Recommendation/Study**

Our water system recently failed to provide an optimal corrosion control treatment (OCCT) recommendation/study following exceedance of the lead action level after recent tap monitoring results. Although this situation does not require that you take immediate action, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation.

During *(compliance period)*, we failed to provide the OCCT recommendation/study. *(Field staff may want to further describe the violation, to include additional specifics such as observations, concentration levels, dates, times, etc. to summarize situational correctness).*

**What should I do?**

There is nothing you need to do at this time. You may continue to drink the water. If a situation arises where the water is no longer safe to drink, you will be notified within 24 hours.

**What is being done?**

*(Field staff to describe the corrective action(s) required by the waterworks owner and when the violation is expected to be resolved.)*

For more information, please contact *(name of contact)* at *(phone number)* or *(mailing address)*.

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by *(system)*. State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Failure to Provide an Optimal Corrosion Control Treatment (OCCT)  
Recommendation/Study - (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
*(Community/Noncommunity Waterworks)*

By direct (hand) delivery on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_

Provided to the following broadcast media *(list: television/radio/website/social media)* on

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ *(method and date)*

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

ATTN: COMPLIANCE SPECIALIST  
Name Field Office, Office of Drinking Water  
Address

**FM-C14-T3-Attachment 32.** Failure to Provide a Source Water Treatment (SoWT) Proposal.

**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 3 NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

### NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner

Address 1

Address 2

City, State, Zip

Re: Failure to Provide a Source Water Treatment (SoWT) Proposal

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-405 B 1 a of the Virginia *Waterworks Regulations* (“Regulations”) for failing to provide a source water treatment proposal following the exceedance of the lead action level after recent tap monitoring results. The Regulations characterize this alleged violation as a Tier 3 violation.

Section 12VAC5-590-405 B 1 a states, in part, “The owner of a waterworks exceeding the lead or copper [Action Level] shall complete lead and copper source water monitoring...and submit a treatment proposal to the [Virginia Department of Health]...no later than 180 days after the end of the monitoring period during which the lead or copper [Action Level] was exceeded.”

(Field staff may want to insert a narrative to further describe this violation situation in this NOAV. Narrative to include observations, sampling results, dates, times, etc. where appropriate.)

### **Required Actions**

In accordance with Section 12VAC5-590-540 of the Regulations, you are required to issue a Tier 3 public notice (“Notice”) to the consumers in the area served by the waterworks in accordance with the public notification requirements described below:

**Public Notice:** The Notice requires you to notify consumers in the area served **within 12 months** of learning of the violation. This Notice must be handled as follows:

- You must distribute the Notice no later than *(date)*.
- The Notice must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example), you must also use other delivery methods to provide the Notice to these consumers as well. Examples of other methods include, but are not limited to, publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the waterworks.
- You may choose to include the Notice as an enclosure with or as an integral part of your Consumer Confidence Report (CCR) for *(year)* water quality data. To do so, the combined CCR and public Notice must be distributed to consumers by July 1, *(year)*, AND you must take steps to ensure that the CCR and public Notice reach all persons served by the waterworks. This requirement is more stringent than the “good faith effort” requirements for distributing the CCR alone.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved.)*
- You must repeat distribution of the Notice annually for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved.)*

**Draft Notice:** Attached is a draft Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at *(phone number)* or email at *(email address)*.

Sincerely,

Name & Title  
Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 3 Public Notice
2. Certification Form

cc: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director.  
Administrator/Manager, name of County, County

**NOTICE TO CONSUMERS  
of the Name WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Failure to Provide a Source Water Treatment (SoWT) Proposal**

Our water system recently failed to provide a source water treatment proposal following the exceedance of the lead action level after recent tap monitoring results. Although this situation does not require that you take immediate action, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation.

During *(compliance period)*, we failed to provide the source water treatment proposal. *(Field staff may want to further describe the violation, to include specifics such as observations, concentration levels, dates, times, etc. to summarize situational correctness).*

**What should I do?**

There is nothing you need to do at this time. You may continue to drink the water. If a situation arises where the water is no longer safe to drink, you will be notified within 24 hours.

**What is being done?**

*(Field staff to describe the corrective action(s) required by the waterworks owner and when the violation is expected to be resolved.)*

For more information, please contact *(name of contact)* at *(phone number)* or *(mailing address)*.

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by *(system)*. State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.



SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Failure to Provide a Source Water Treatment (SoWT) Proposal - (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
*(Community/Noncommunity Waterworks)*

By direct (hand) delivery on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_

Provided to the following broadcast media *(list: television/radio/website/social media)* on

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ *(method and date)*

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

ATTN: COMPLIANCE SPECIALIST  
Name Field Office, Office of Drinking Water  
Address

**FM-C14-T3-Attachment 33.** Failure to Produce a Filter Assessment.

**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 3 NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

**NOTICE OF ALLEGED VIOLATION**

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Failure to Produce a Filter Assessment

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-531 A 3 a of the Virginia *Waterworks Regulations* (“Regulations”) for failing to produce a filter assessment when abnormal filter performance occurred. The Regulations characterize this alleged violation as a Tier 3 violation.

12VAC5-590-531 A 3 a states, “For an individual filter that has a measured turbidity level of greater than 1.0 [nephelometric turbidity units] in two consecutive measurements collected 15 minutes apart, the owner shall report the filter number, the turbidity measurement, and the dates on which the exceedances occurred. In addition, the owner shall either produce a filter profile for the filter within seven days of the exceedance if the owner is not able to identify an obvious reason for the abnormal filter performance and report that the profile has been produced or report the obvious reason for the exceedance.”

(Field staff may want to insert a narrative to further describe this violation situation in this NOAV. Narrative to include observations, sampling results, dates, times, etc. where appropriate.)

**Required Actions**

In accordance with Section 12VAC5-590-540 of the Regulations, you are required to issue a Tier 3 public notice (“Notice”) to the consumers in the area served by the waterworks in accordance with the public notification requirements described below:

**Public Notice:** The Notice requires you to notify consumers in the area served **within 12 months** of learning of the violation. This Notice must be handled as follows:

- You must distribute the Notice no later than *(date)*.
- The Notice must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example), you must also use other delivery methods to provide the Notice to these consumers as well. Examples of other methods include, but are not limited to, publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the waterworks.
- You may choose to include the Notice as an enclosure with or as an integral part of your Consumer Confidence Report (CCR) for *(year)* water quality data. To do so, the combined CCR and public Notice must be distributed to consumers by July 1, *(year)*, AND you must take steps to ensure that the CCR and public Notice reach all persons served by the waterworks. This requirement is more stringent than the “good faith effort” requirements for distributing the CCR alone.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved.)*
- You must repeat distribution of the Notice annually for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved.)*

**Draft Notice:** Attached is a draft Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at (phone number) or email at (email address).

Sincerely,

Name & Title  
Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 3 Public Notice
2. Certification Form

ec: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director.  
Administrator/Manager, name of County, County

**NOTICE TO CONSUMERS  
of the Name WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Failure to Produce a Filter Assessment**

Our water system recently failed to comply with the requirement to produce a filter assessment whenever abnormal filter performance occurs. Although this situation does not require that you take immediate action, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation.

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During *(compliance period)*, we failed to produce the filter assessment intended to determine the reasons why the abnormal filter performance occurred, and therefore we cannot be sure of the quality of our drinking water during that time. *(Field staff may want to further describe the violation, to include additional specifics such as other observations, concentration level, dates, times, etc. to summarize situational correctness).*

**What should I do?**

There is nothing you need to do at this time. You may continue to drink the water. If a situation arises where the water is no longer safe to drink, you will be notified within 24 hours.

**What is being done?**

*(Field staff to describe the corrective action(s) required by the waterworks owner and when the violation is expected to be resolved.)*

For more information, please contact *(name of contact)* at *(phone number)* or *(mailing address)*.

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by *(system)*. State Water System ID#: \_\_\_\_\_.  
Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Failure to Produce a Filter Assessment - (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
(Community Waterworks)

By direct (hand) delivery on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_  
\_\_\_\_\_

Provided to the following broadcast media (list: television/radio/website/social media) on

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ (method and date)

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

ATTN: COMPLIANCE SPECIALIST  
Name Field Office, Office of Drinking Water  
Address

**FM-C14-T3-Attachment 34.** Failure to Provide Public Notice on Fluoride Level > SMCL.

**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 1 NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

## NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Failure to Provide Public Notice on Fluoride Level Greater Than SMCL

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-540 G 1 of the Virginia *Waterworks Regulations* (“Regulations”) for failing to provide public notice on the occurrence of the fluoride level greater than the Secondary Maximum Contaminant Level (SMCL). The Regulations characterize this alleged violation as a Tier 3 violation.

Section 12VAC5-590-540 G 1 states, “A community waterworks that exceeds the SMCL of 2 mg/L but does not exceed the [Primary Maximum Contaminant Level] of 4 mg/L for fluoride shall provide public notice to persons served as soon as practical but no later than 12 months from the day the owner learns of the exceedance.”

(Field staff may want to insert a narrative to further describe this violation situation in this NOAV. Narrative to include observations, sampling results, dates, times, etc. where appropriate)

### **Required Actions**

In accordance with Section 12VAC5-590-540 of the Regulations, you are required to issue a Tier 3 public notice (“Notice”) to the consumers in the area served by the waterworks in accordance with the public notification requirements described below:

**Public Notice:** The Notice requires you to notify consumers in the area served **within 12 months** of learning of the violation. This Notice must be handled as follows:

- You must distribute the Notice no later than *(date)*.
- The Notice must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example), you must also use other delivery methods to provide the Notice to these consumers as well. Examples of other methods include, but are not limited to, publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the waterworks.
- You may choose to include the Notice as an enclosure with or as an integral part of your Consumer Confidence Report (CCR) for *(year)* water quality data. To do so, the combined CCR and public Notice must be distributed to consumers by July 1, *(year)*, AND you must take steps to ensure that the CCR and public Notice reach all persons served by the waterworks. This requirement is more stringent than the “good faith effort” requirements for distributing the CCR alone.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units and new customers at the time service begins and to the department. *(This requirement may be deleted if the violation has already been resolved.)*
- You must repeat distribution of the Notice at least annually for as long as the SMCL is exceeded. *(This requirement may be deleted if the violation has already been resolved.)*
- If the public Notice is posted, then it shall remain in place for as long as the SMCL is exceeded, but in no case less than seven days even if the exceedance is eliminated.
- On a case-by-case basis, the department may require an initial Notice sooner than 12 months and repeat notices more frequently than annually.

**Draft Notice:** Attached is a draft Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *date*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil



charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at (phone number) or email at (email address).

Sincerely,

Name & Title

Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 3 Public Notice
2. Certification Form

cc: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director. Administrator/Manager, name of County, County

**NOTICE TO CONSUMERS  
of the Name WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Failure to Provide Public Notice on Fluoride Level Greater Than SMCL**

Our water system recently violated a drinking water regulation. Although this situation does not require that you take immediate action, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation. During the *(monitoring period)*, our waterworks failed to provide a public notice on the occurrence of the fluoride level greater than the Secondary Maximum Contaminant Limit (SMCL). *(Field staff may want to elaborate and include additional clarifying details).*

*\*This is an alert about your drinking water and a cosmetic dental problem that might affect children under nine years of age. At low levels, fluoride can help prevent cavities, but children drinking water containing more than 2 milligrams per liter (mg/l) of fluoride may develop cosmetic discoloration of their permanent teeth (dental fluorosis). The drinking water provided by your community water system has a fluoride concentration of [insert value] mg/l.*

*Dental fluorosis in its moderate or severe forms, may result in a brown staining and or pitting of the permanent teeth. This problem occurs only in developing teeth, before they erupt from the gums. Children under nine should be provided with alternative sources of drinking water or water that has been treated to remove the fluoride to avoid the possibility of staining and pitting of their permanent teeth. You may also want to contact your dentist about proper use by young children of fluoride-containing products. Older children and adults may safely drink the water.*

*Drinking water containing more than 4 mg/l of fluoride (the US Environmental Protection Agency's drinking water standard) can increase your risk of developing bone disease. Your drinking water does not contain more than 4 mg/l of fluoride, but we're required to notify you when we discover that the fluoride levels in your drinking water exceed 2 mg/l because of this cosmetic dental problem.\**

For more information, please contact *(name of contact)* at *(phone number)* or *(mailing address)*. Some home water treatment units are also available to remove fluoride from drinking water. To learn more about available home water treatment units, you may call NSF International at 1-877-867-3435 or email [info@nsf.org](mailto:info@nsf.org).”

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by *(system)*. State Water System ID#: \_\_\_\_\_.  
Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Failure to Post Notice on Fluoride Level Greater Than SMCL - (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
(Community Waterworks)

By direct (hand) delivery on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_

Provided to the following broadcast media (list: television/radio/website/social media) on

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ (method and date)

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address

**FM-C14-T3-Attachment 35.** Failure to Perform WQP Monitoring/Reporting.

**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 3 NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

### NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Failure to Perform Water Quality Parameter (WQP) Monitoring and/or Reporting

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-375 C 4 of the Virginia *Waterworks Regulations* (“Regulations”) for failing to perform the required water quality parameter (WQP) monitoring and/or /reporting following installation of optimal corrosion control treatment (OCCT). The Regulations characterize this alleged violation as a Tier 3 violation.

Section 12VAC5-590-375 C 4 states, in part, “After the [Virginia Department of Health] specifies the values for applicable water quality control parameters reflecting optimal corrosion control treatment..., the owner of a large waterworks shall measure the applicable water quality parameters...and determine compliance with the requirements of 12VAC5-590-405 A 1 g every six months with the first six-month period to begin on either January 1 or July 1, whichever comes first, after the [Virginia Department of Health] specifies the optimal values.... The owner of a small or a medium waterworks shall conduct monitoring during each six-month monitoring period...in which the waterworks exceeds the lead or copper [Action Level].... Compliance with the [Virginia Department of Health]-designated optimal water quality parameter values shall be determined as specified under 12VAC5-590-405 A 1 g.”

(Field staff may want to insert a narrative to further describe this violation situation in this NOAV. Narrative to include observations, sampling results, dates, times, etc. where appropriate.)

## **Required Actions**

In accordance with Section 12VAC5-590-540 of the Regulations, you are required to issue a Tier 3 public notice (“Notice”) to the consumers in the area served by the waterworks in accordance with the public notification requirements described below:

**Public Notice:** The Notice requires you to notify consumers in the area served **within 12 months** of learning of the violation. This Notice must be handled as follows:

- You must distribute the Notice no later than *(date)*.
- The Notice must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example), you must also use other delivery methods to provide the Notice to these consumers as well. Examples of other methods include, but are not limited to, publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the waterworks.
- You may choose to include the Notice as an enclosure with or as an integral part of your Consumer Confidence Report (CCR) for *(year)* water quality data. To do so, the combined CCR and public Notice must be distributed to consumers by July 1, *(year)*, AND you must take steps to ensure that the CCR and public Notice reach all persons served by the waterworks. This requirement is more stringent than the “good faith effort” requirements for distributing the CCR alone.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved.)*
- You must repeat distribution of the Notice annually for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved.)*

**Draft Notice:** Attached is a draft Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at (phone number) or email at (email address).

Sincerely,

Name & Title  
Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 3 Public Notice
2. Certification Form

ec: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director. Administrator/Manager, name of County, County

**NOTICE TO CONSUMERS  
of the Name WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Failure to Perform Water Quality Parameter (WQP) Monitoring and/or Reporting**

Our water system recently failed to comply with the requirement to perform the required water quality parameter (WQP) *monitoring and/or reporting* following installation of optimal corrosion control treatment (OCCT). Although this situation does not require that you take immediate action, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation.

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During *(compliance period)*, we failed to perform the required water quality parameter (WQP) *monitoring and/or reporting*, and therefore we cannot be sure of the quality of your drinking water during that time. *(Field staff may want to further describe the violation, to include specifics such as observations, concentration levels, dates, times, etc. to summarize situational correctness)*

**What should I do?**

There is nothing you need to do at this time. You may continue to drink the water. If a situation arises where the water is no longer safe to drink, you will be notified within 24 hours.

**What is being done?**

*(Field staff to describe the corrective action(s) required by the waterworks owner and when the violation is expected to be resolved.)*

For more information, please contact *(name of contact)* at *(phone number)* or *(mailing address)*.

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by *(system)*. State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Failure to Perform Water Quality Parameter (WQP) Monitoring and/or Reporting  
- (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
*(Community Waterworks)*

By direct (hand) delivery on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_  
\_\_\_\_\_

Provided to the following broadcast media *(list: television/radio/website/social media)* on

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ *(method and date)*

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

ATTN: COMPLIANCE SPECIALIST  
Name Field Office, Office of Drinking Water  
Address



**FM-C14-T3-Attachment 36.** Failure to Perform Minor Routine Turbidity Monitoring.

**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 3 NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

**NOTICE OF ALLEGED VIOLATION**

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Failure to Perform Minor Routine Turbidity Monitoring

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-376 B of the Virginia *Waterworks Regulations* (“Regulations”) for failing to perform all of the required routine turbidity monitoring of your water treatment plant operations. Regulations characterize this alleged violation as a Tier 3 violation.

Section 12VAC5-590-376 B states, in part, “Turbidity measurements shall be performed on representative samples of the filtered water every four hours (or more frequently) that the waterworks serves water to the public. The owner may substitute continuous turbidity monitoring for grab sample monitoring if the owner validates the continuous measurement for accuracy on a regular basis using a protocol approved by the [Virginia Department of Health].... The owner of a waterworks supplied by a surface water source, a [groundwater under the direct influence of surface water] source, or both using conventional filtration treatment or direct filtration shall conduct continuous monitoring of turbidity for each individual filter. The turbidimeter shall be calibrated using the procedure specified by the turbidimeter manufacturer. The owner shall record the results of individual filter turbidity monitoring a minimum of every 15 minutes.”

(Field staff may want to insert a narrative to further describe this violation situation in this NOAV. Narrative to include observations, sampling results, dates, times, etc. where appropriate.)

## **Required Actions**

In accordance with Section 12VAC5-590-540 of the Regulations, you are required to issue a Tier 3 public notice (“Notice”) to the consumers in the area served by the waterworks in accordance with the public notification requirements described below:

**Public Notice:** The Notice requires you to notify consumers in the area served **within 12 months** of learning of the violation. This Notice must be handled as follows:

- You must distribute the Notice no later than *(date)*.
- The Notice must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example), you must also use other delivery methods to provide the Notice to these consumers as well. Examples of other methods include, but are not limited to, publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the waterworks.
- You may choose to include the Notice as an enclosure with or as an integral part of your Consumer Confidence Report (CCR) for *(year)* water quality data. To do so, the combined CCR and public Notice must be distributed to consumers by July 1, *(year)*, AND you must take steps to ensure that the CCR and public Notice reach all persons served by the waterworks. This requirement is more stringent than the “good faith effort” requirements for distributing the CCR alone.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved.)*
- You must repeat distribution of the Notice annually for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved.)*

**Draft Notice:** Attached is a draft Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at (phone number) or email at (email address).

Sincerely,

Name & Title  
Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 3 Public Notice
2. Certification Form

ec: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director. Administrator/Manager, name of County, County

**NOTICE TO CONSUMERS  
of the Name WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Failure to Perform Minor Routine Turbidity Monitoring**

Our water system recently failed to comply with the requirement to perform all of the required routine turbidity monitoring of the water treatment plant operations. Although this situation does not require that you take immediate action, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation.

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During *(compliance period)*, we failed to perform all of the required routine turbidity monitoring, and therefore we cannot be sure of the quality of the drinking water during that time. *(Field staff may want to further describe the violation, to include specifics such as observations, concentration levels, dates, times, etc. to summarize situational correctness).*

**What should I do?**

There is nothing you need to do at this time. You may continue to drink the water. If a situation arises where the water is no longer safe to drink, you will be notified within 24 hours.

**What is being done?**

*(Field staff to describe the corrective action(s) required by the waterworks owner and when the violation is expected to be resolved.)*

For more information, please contact *(name of contact)* at *(phone number)* or *(mailing address)*.

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by *(system)*. State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Failure to Perform Minor Routine Turbidity Monitoring - (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
(Community Waterworks)

By direct (hand) delivery on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_

Provided to the following broadcast media (list: television/radio/website/social media) on

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ (method and date)

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address

**FM-C14-T3-Attachment 37.** Failure to Notify Wholesaler Waterworks of a TC+ Result.

**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 3 NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

### NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Failure to Notify Wholesaler Waterworks of a Total Coliform-Positive Analytical Result

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-379 B 1 d (1) of the Virginia *Waterworks Regulations* (“Regulations”) for failing to notify the wholesaler waterworks that there has been the occurrence of a total coliform-positive sample result from monitoring of your distribution system. The Regulations characterize this alleged violation as a Tier 3 violation.

Section 12VAC5-590-379 B 1 d (1) states, in part, “A consecutive groundwater system owner that has a total coliform-positive sample...shall notify the wholesale waterworks owner and the [Virginia Department of Health] within 24 hours of being notified of the total coliform-positive sample.”

(Field staff may want to insert a narrative to further describe this violation situation in this NOAV. Narrative to include observations, sampling results, dates, times, etc. where appropriate.)

#### **Required Actions**

In accordance with Section 12VAC5-590-540 of the Regulations, you are required to issue a Tier 3 public notice (“Notice”) to the consumers in the area served by the waterworks in accordance with the public notification requirements described below:

**Public Notice:** The Notice requires you to notify consumers in the area served **within 12 months** of learning of the violation. This Notice must be handled as follows:

- You must distribute the Notice no later than *(date)*.
- The Notice must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example), you must also use other delivery methods to provide the Notice to these consumers as well. Examples of other methods include, but are not limited to, publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the waterworks.
- You may choose to include the Notice as an enclosure with or as an integral part of your Consumer Confidence Report (CCR) for *(year)* water quality data. To do so, the combined CCR and public Notice must be distributed to consumers by July 1, *(year)*, AND you must take steps to ensure that the CCR and public Notice reach all persons served by the waterworks. This requirement is more stringent than the “good faith effort” requirements for distributing the CCR alone.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved.)*
- You must repeat distribution of the Notice annually for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved.)*

**Draft Notice:** Attached is a draft Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27 and 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at *(phone number)* or email at *(email address)*.

Sincerely,

Name & Title  
Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 3 Public Notice
2. Certification Form

cc: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director.  
Administrator/Manager, name of County, County



**NOTICE TO CONSUMERS  
of the Name WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Failure to Notify Wholesaler Waterworks of a Total Coliform-Positive Analytical Result**

Our water system recently failed to notify the wholesaler waterworks that a total coliform-positive sample has resulted from the monitoring of our distribution system on *(date)*. Although this situation does not require that you take immediate action, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation.

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During *(compliance period)*, we failed to notify the wholesaler waterworks of this total coliform-positive result in a timely manner to allow it time to collect samples from each of its groundwater sources, and therefore we cannot be sure of the quality of your drinking water during that time. *(Field staff may want to further describe the violation, to include specifics such as observations, concentration levels, dates, times, etc. to summarize situational correctness).*

**What should I do?**

There is nothing you need to do at this time. You may continue to drink the water. If a situation arises where the water is no longer safe to drink, you will be notified within 24 hours.

**What is being done?**

*(Field staff to describe the corrective action(s) required by the waterworks owner and when the violation is expected to be resolved.)*

For more information, please contact *(name of contact)* at *(phone number)* or *(mailing address)*.

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by *(system)*. State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Failure to Notify Wholesaler Waterworks of a Total Coliform-Positive Analytical Result- (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
*(Community/Noncommunity Waterworks)*

By direct (hand) delivery on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_

Provided to the following broadcast media *(list: television/radio/website/social media)* on

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ *(method and date)*

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
*Name* Field Office, Office of Drinking Water  
*Address*

**FM-C14-T3-Attachment 38.** Failure to Notify Consecutive Waterworks of an EC+ Result.

**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 3 NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

## NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Failure to Notify Consecutive Waterworks of an *E.coli*-Positive Analytical Result

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-379 B 1 d (2) (b) of the Virginia *Waterworks Regulations* (“Regulations”) for failing to notify the consecutive waterworks that there has been the occurrence of an *E. coli* -positive sample result from monitoring of your distribution system. The Regulations characterize this alleged violation as a Tier 3 violation.

Section 12VAC5-590-379 B 1 d (2) (b) states, in part, “If the sample collected... is *E. coli* positive, then the wholesale groundwater system owner shall within 24 hours notify all consecutive waterworks served by that groundwater source of the *E. coli*-positive source water sample....”

(Field staff may want to insert a narrative to further describe this violation situation in this NOAV. Narrative to include observations, sampling results, dates, times, etc. where appropriate.)

### **Required Actions**

In accordance with Section 12VAC5-590-540 of the Regulations, you are required to issue a Tier 3 public notice (“Notice”) to the consumers in the area served by the waterworks in accordance with the public notification requirements described below:

**Public Notice:** The Notice requires you to notify consumers in the area served **within 12 months** of learning of the violation. This Notice must be handled as follows:

- You must distribute the Notice no later than *(date)*.
- The Notice must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example), you must also use other delivery methods to provide the Notice to these consumers as well. Examples of other methods include, but are not limited to, publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the waterworks.
- You may choose to include the Notice as an enclosure with or as an integral part of your Consumer Confidence Report (CCR) for *(year)* water quality data. To do so, the combined CCR and public Notice must be distributed to consumers by July 1, *(year)*, AND you must take steps to ensure that the CCR and public Notice reach all persons served by the waterworks. This requirement is more stringent than the “good faith effort” requirements for distributing the CCR alone.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved.)*
- You must repeat distribution of the Notice annually for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved.)*

**Draft Notice:** Attached is a draft Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at (phone number) or email at (email address).

Sincerely,

Name & Title  
Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 3 Public Notice
2. Certification Form

ec: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director. Administrator/Manager, name of County, County

**NOTICE TO CONSUMERS  
of the Name WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Failure to Notify Consecutive Waterworks of an *E. coli*-Positive Analytical Result**

Our water system recently failed to notify the consecutive waterworks that an *E. coli*-positive sample has resulted from the monitoring of our distribution system on *(date)*. Although this situation does not require that you take immediate action, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation.

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During *(compliance period)*, we failed to notify the consecutive waterworks of this *E. coli*-positive sample result in a timely manner, and therefore we cannot be sure of the quality of your drinking water during that time. *(Field staff may want to further describe the violation, to include specifics such as observations, concentration levels, dates, times, etc. to summarize situational correctness).*

**What should I do?**

There is nothing you need to do at this time. You may continue to drink the water. If a situation arises where the water is no longer safe to drink, you will be notified within 24 hours.

**What is being done?**

*(Field staff to describe the corrective action(s) required by the waterworks owner and when the violation is expected to be resolved.)*

For more information, please contact *(name of contact)* at *(phone number)* or *(mailing address)*.

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by *(system)*. State Water System ID#: \_\_\_\_\_.  
Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Failure to Notify Consecutive Waterworks of an *E.coli*-Positive Analytical Result  
- (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
*(Community Waterworks)*

By direct (hand) delivery on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_  
\_\_\_\_\_

Provided to the following broadcast media (list: television/radio/website/social media) on

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ (method and date)

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address

**FM-C14-T3-Attachment 39.** Failure to Monitor for Volatile Organic Chemicals (VOCs).

**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 3 NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

### NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner

Address 1

Address 2

City, State, Zip

Re: Failure to Monitor for Volatile Organic Chemicals (VOCs)

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-373 A of the Virginia *Waterworks Regulations* (“Regulations”) for failing to complete the required monitoring for Volatile Organic Chemicals (VOCs) during the (compliance period). (Field staff may want to elaborate and include additional clarifying details). The Regulations characterize this alleged violation as a Tier 3 violation.

Section 12VAC5-590-373 A states, “The owner of a community waterworks or a [nontransient noncommunity waterworks] shall conduct monitoring to determine compliance with [Primary Maximum Contaminant Levels] listed in Table 340.2 in accordance with this section. Where two or more sources are combined before distribution, the owner shall sample at the entry point for the combined sources during periods of normal operation conditions.”

(Field staff may want to insert a narrative to further describe this violation situation that resulted in this NOAV, to include specifics such as observations, concentration levels, dates, times, etc. where appropriate; e.g., choose from the options below).

(Option 1A – Initial Quarterly Monitoring)

The Regulations require waterworks with a new source(s) to complete four consecutive calendar quarters of Volatile Organic Chemical (VOC) monitoring. Our records indicate that there was a failure to collect the required sample(s) for this (name new source) because samples were not collected during the (1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup>, 4<sup>th</sup>) quarter of (year).



(Option 1B – Increased Quarterly Monitoring)

The Regulations require waterworks where a Volatile Organic Chemical (VOC) has been detected, to monitor for the VOCs each calendar quarter. See our letter dated (date) requiring quarterly monitoring. Our records indicate that there was a failure to collect the required sample(s) for this (name new source) because samples were not collected during the (1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup>, 4<sup>th</sup>) quarter of (year).

(Option 2A – Reduced Annual)

The Regulations require waterworks, which completed the quarterly initial Volatile Organic Chemical (VOC) monitoring, and did not detect any VOC, to monitor annually for VOCs listed in the *Waterworks Regulations* at each entry point or other designated point(s) which are representative of each source after treatment. Our records indicate that there was a failure to collect the required sample in (year).

(Option 2B – Reduced Annual In A Specific Quarter)

The Regulations require waterworks, which completed quarterly Volatile Organic Chemical (VOC) monitoring, and detected a VOC, to monitor annually during the (1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup>, 4<sup>th</sup>) quarter for VOCs listed in Table 340.2 of the Regulations at each entry point or other designated point(s) which are representative of each source after treatment. Our records indicate there was a failure to collect the required VOC sample during the (1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup>, 4<sup>th</sup>) quarter of (year).

(Option 3 – Reduced Triennial)

The Regulations require waterworks, which completed the quarterly initial and annual Volatile Organic Chemical (VOC) monitoring, and did not detect any VOC, to monitor triennially for VOCs listed in Table 340.2 of the Regulations at each entry point or other designated point(s) which are representative of each source after treatment. Our records indicate that there was a failure to collect the required sample(s) in the compliance period starting January 1, (year) and ending December 31, (year).

**Required Actions**

In accordance with Section 12VAC5-590-540 of the Regulations, you are required to issue a Tier 3 public notice (“Notice”) to the consumers in the area served by the waterworks in accordance with the public notification requirements described below:

**Public Notice:** The Notice requires you to notify consumers in the area served **within 12 months** of learning of the violation. This Notice must be handled as follows:

- You must distribute the Notice no later than (date).
- The Notice must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example), you must also use other delivery methods to provide the Notice to these consumers as well. Examples of other methods include, but are not limited to, publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the waterworks.

- You may choose to include the Notice as an enclosure with or as an integral part of your Consumer Confidence Report (CCR) for *(year)* water quality data. To do so, the combined CCR and public Notice must be distributed to consumers by July 1, *(year)*, AND you must take steps to ensure that the CCR and public Notice reach all persons served by the waterworks. This requirement is more stringent than the “good faith effort” requirements for distributing the CCR alone.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved.)*
- You must repeat distribution of the Notice annually for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved.)*

**Draft Notice:** Attached is a draft Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at *(phone number)* or email at *(email address)*.

Sincerely,

*Name & Title*  
*Field office name*

*ABC:xyz*

*Enclosures: (If applicable, insert any other relevant information)*

1. Draft Tier 3 Public Notice
2. Certification Form

cc: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director.  
Administrator/Manager, name of County, County

**NOTICE TO CONSUMERS  
of the Name WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Failure to Monitor for Volatile Organic Chemicals (VOCs)**

Our water system violated drinking water requirements over the past year. Although this situation does not require that you take immediate action, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation.

*\*We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During [compliance period], we [‘did not monitor or test’ or ‘did not complete all monitoring or testing’] for [specify contaminant(s)] and therefore cannot be sure of the quality of your drinking water during that time.\**

*[Field staff may want to further describe the violation, to include additional specifics, such as other observations to summarize situational correctness].*

**What should I do?**

There is nothing you need to do at this time. You may continue to drink the water. If a situation arises where the water is no longer safe to drink, you will be notified within 24 hours.

The table below lists the contaminant(s) we did not properly test for during the last year, how often we are supposed to sample for Volatile Organic Chemicals (VOCs), how many samples we are supposed to take, how many samples we took, when samples should have been taken, and the date on which follow-up samples were (or will be) taken.

Contaminant	Required sampling frequency	Number of samples taken	When samples should have been taken	When samples were taken
“Example”	1 sample every three years	0	2009-2011	February 2012

**What is being done?**

*[Field staff to describe the corrective action(s) required by the waterworks owner and when the violation is expected to be resolved.]*

For more information, please contact *(name of contact)* at *(phone number)* or *(mailing address)*.

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing*

*copies by hand or mail.\**

This notice is being sent to you by (system). State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Failure to Monitor for Volatile Organic Chemicals (VOCs) - (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
*(Community/Noncommunity Waterworks)*

By direct (hand) delivery on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_

Provided to the following broadcast media *(list: television/radio/website/social media)* on

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ *(method and date)*

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address

**FM-C14-T3-Attachment 40.** Failure to Monitor for Turbidity.

**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 3 NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

### NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Failure to Monitor for Turbidity

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-376 B 1 of the Virginia *Waterworks Regulations* (“Regulations”) for failing to complete the required monitoring for turbidity during the (compliance period). The Regulations characterize this alleged violation as a Tier 3 violation.

Section 12VAC5-590-376 B 1 states, “The owner of a waterworks supplied by a surface water source, a [groundwater under the direct influence of surface water] source, or both using conventional filtration treatment or direct filtration shall conduct continuous monitoring of turbidity for each individual filter. The turbidimeter shall be calibrated using the procedure specified by the turbidimeter manufacturer. The owner shall record the results of individual filter turbidity monitoring a minimum of every 15 minutes.”

(Field staff may want to insert a narrative to further describe this violation situation that resulted in this NOAV, to include specifics such as observations, concentration levels, dates, times, etc. where appropriate).

#### **Required Actions**

In accordance with Section 12VAC5-590-540 of the Regulations, you are required to issue a Tier 3 public notice (“Notice”) to the consumers in the area served by the waterworks in accordance with the public notification requirements described below:

**Public Notice:** The Notice requires you to notify consumers in the area served **within 12 months** of learning of the violation. This Notice must be handled as follows:

- You must distribute the Notice no later than *(date)*.
- The Notice must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example), you must also use other delivery methods to provide the Notice to these consumers as well. Examples of other methods include, but are not limited to, publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the waterworks.
- You may choose to include the Notice as an enclosure with or as an integral part of your Consumer Confidence Report (CCR) for *(year)* water quality data. To do so, the combined CCR and public Notice must be distributed to consumers by July 1, *(year)*, AND you must take steps to ensure that the CCR and public Notice reach all persons served by the waterworks. This requirement is more stringent than the “good faith effort” requirements for distributing the CCR alone.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved.)*
- You must repeat distribution of the Notice annually for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved.)*

**Draft Notice:** Attached is a draft Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.



If you have any questions or concerns regarding this matter, please contact me at (phone number) or email at (email address).

Sincerely,

Name & Title  
Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 3 Public Notice
2. Certification Form

ec: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director.  
Administrator/Manager, name of County, County

**NOTICE TO CONSUMERS  
of the Name WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Failure to Monitor for Turbidity**

Our water system violated drinking water requirements over the past year. Although this situation does not require that you take immediate action, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation.

*\*We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During [compliance period], we [‘did not monitor or test’ or ‘did not complete all monitoring or testing’] for [specify contaminant(s)] and therefore cannot be sure of the quality of your drinking water during that time.\**

*[Field staff may want to further describe the violation, to include additional specifics, such as other observations to summarize situational correctness].*

**What should I do?**

There is nothing you need to do at this time. You may continue to drink the water. If a situation arises where the water is no longer safe to drink, you will be notified within 24 hours.

The table below lists the contaminant(s) we did not properly test for during the last year, how often we are supposed to sample for Turbidity, how many samples we are supposed to take, how many samples we took, when samples should have been taken, and the date on which follow-up samples were (or will be) taken.

Contaminant	Required sampling frequency	Number of samples taken	When samples should have been taken	When samples were taken
“Example”	1 sample every three years	0	2009-2011	February 2012

**What is being done?**

*[Field staff to describe the corrective action(s) required by the waterworks owner and when the violation is expected to be resolved.]*

For more information, please contact (*name of contact*) at (*phone number*) or (*mailing address*).

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing*

*copies by hand or mail.\**

This notice is being sent to you by (system). State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Failure to Monitor for Turbidity - (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
**(Community Waterworks)**

By direct (hand) delivery on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_  
\_\_\_\_\_

Provided to the following broadcast media (list: television/radio/website/social media) on

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ (method and date)

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address

**FM-C14-T3-Attachment 41.** Failure to Monitor for Synthetic Organic Chemicals (SOCs).

**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 3 NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

### NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner

Address 1

Address 2

City, State, Zip

Re: Failure to Monitor for Synthetic Organic Chemicals (SOCs)

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-373 A of the Virginia *Waterworks Regulations* (“Regulations”) for failing to complete the required monitoring for Synthetic Organic Chemicals (SOCs) during the (compliance period). (Field staff may want to elaborate and include additional clarifying details). The Regulations characterize this alleged violation as a Tier 3 violation.

Section 12VAC5-590-373 A states, in part, “The owner of a community waterworks or a [nontransient noncommunity waterworks] shall conduct monitoring to determine compliance with [Primary Maximum Contaminant Levels] listed in Table 340.2 in accordance with this section. Where two or more sources are combined before distribution, the owner shall sample at the entry point for the combined sources during periods of normal operation conditions.”

(Field staff may want to insert a narrative to further describe this violation situation that resulted in this NOAV, to include specifics such as observations, concentration levels, dates, times, etc. where appropriate).

(Option 1 – Initial Monitoring)

The Regulations require waterworks to monitor for Synthetic Organic Chemicals (SOCs) for four consecutive calendar quarters at each entry point during each compliance period unless a monitoring waiver was granted by the Commissioner. (A waiver application for laboratory analysis method(s) for this waterworks was denied in a letter dated (year).) Our records indicate there was a failure to collect the required samples for the SOC contaminants covered by laboratory analysis because

samples were not collected for four consecutive calendar quarters between January 1, *(year)* and December 31, *(year)*.

*(Option 2 – Following Reduced Monitoring)*

Our records indicate this waterworks was allowed by the Regulations to reduce the initial Synthetic Organic Chemical (SOC) monitoring frequency to *(frequency)* per entry point per three-year compliance period. (The two samples were to be collected within one year of each other.) Our records indicate there was a failure to collect the required samples in the compliance period between January 1, *(year)*, and December 31, *(year)*.

*(Option 3 – On Increased Monitoring)*

The Regulations require waterworks, where a Synthetic Organic Chemical (SOC) has been detected, to monitor for the Synthetic Organic Chemical each calendar quarter. *(Specify contaminant(s))* *(was/were)* detected and our records indicate that there was a failure to collect the required sample(s) during the *(1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup>, 4<sup>th</sup>)* calendar quarter *(year)*.

**Required Actions**

In accordance with Section 12VAC5-590-540 of the Regulations, you are required to issue a Tier 3 public notice (“Notice”) to the consumers in the area served by the waterworks in accordance with the public notification requirements described below:

**Public Notice:** The Notice requires you to notify consumers in the area served **within 12 months** of learning of the violation. This Notice must be handled as follows:

- You must distribute the Notice no later than *(date)*.
- The Notice must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example), you must also use other delivery methods to provide the Notice to these consumers as well. Examples of other methods include, but are not limited to, publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the waterworks.
- You may choose to include the Notice as an enclosure with or as an integral part of your Consumer Confidence Report (CCR) for *(year)* water quality data. To do so, the combined CCR and public Notice must be distributed to consumers by July 1, *(year)*, AND you must take steps to ensure that the CCR and public Notice reach all persons served by the waterworks. This requirement is more stringent than the “good faith effort” requirements for distributing the CCR alone.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved.)*
- You must repeat distribution of the Notice annually for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved.)*

**Draft Notice:** Attached is a draft Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any "calling out" for a mutually agreeable schedule and/or completion dates for each corrective action.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at *(phone number)* or email at *(email address)*.

Sincerely,

*Name & Title*  
*Field office name*

*ABC:xyz*

*Enclosures: (If applicable, insert any other relevant information)*

1. Draft Tier 3 Public Notice
2. Certification Form

*ec: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director. Administrator/Manager, name of County, County*

**NOTICE TO CONSUMERS  
of the Name WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Failure to Monitor for Synthetic Organic Chemicals (SOCs)**

Our water system violated drinking water requirements over the past year. Although this situation does not require that you take immediate action, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation.

*\*We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During [compliance period], we [‘did not monitor or test’ or ‘did not complete all monitoring or testing’] for [specify contaminant(s)] and therefore cannot be sure of the quality of your drinking water during that time.\**

*[Field staff may want to further describe the violation, to include additional specifics, such as other observations to summarize situational correctness].*

**What should I do?**

There is nothing you need to do at this time. You may continue to drink the water. If a situation arises where the water is no longer safe to drink, you will be notified within 24 hours.

The table below lists the contaminant(s) we did not properly test for during the last year, how often we are supposed to sample for Synthetic Organic Chemicals (SOCs), how many samples we are supposed to take, how many samples we took, when samples should have been taken, and the date on which follow-up samples were (or will be) taken.

Contaminant	Required sampling frequency	Number of samples taken	When samples should have been taken	When samples were taken
“Example”	1 sample every three years	0	2009-2011	February 2012

**What is being done?**

*[Field staff to describe the corrective action(s) required by the waterworks owner and when the violation is expected to be resolved.]*

For more information, please contact (*name of contact*) at (*phone number*) or (*mailing address*).

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing*



*copies by hand or mail.\**

This notice is being sent to you by (system). State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Failure to Monitor for Synthetic Organic Chemicals (SOCs)-(tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
*(Community Waterworks)*

By direct (hand) delivery on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_

Provided to the following broadcast media *(list: television/radio/website/social media)* on

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ *(method and date)*

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
*Name* Field Office, Office of Drinking Water  
*Address*

**FM-C14-T3-Attachment 42. Failure to Monitor for Radiological Contaminants.**

**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 3 NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

**NOTICE OF ALLEGED VIOLATION**

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Failure to Monitor for Radiological Contaminants

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-378 B of the Virginia *Waterworks Regulations* (“Regulations”) for failing to complete the required monitoring for the radiological contaminants [staff to specify name(s) of contaminant(s)] during the (compliance period). (Field staff may want to elaborate and include additional clarifying details). The Regulations characterize this alleged violation as a Tier 3 violation.

Section 12VAC5-590-378 B states, in part, “The owner of a community waterworks shall conduct monitoring to determine compliance with the [Primary Maximum Contaminant Levels] listed in Table 340.4 and 12VAC5-590-388 in accordance with this section.”

(Field staff may want to insert a narrative to further describe this violation situation that resulted in this NOAV, to include specifics such as observations, concentration levels, dates, times, etc. where appropriate; e.g., choose from text below).

Field staff to include the specific citation to the regulations in the paragraph below which is the basis for the monitoring frequency. Select one of the subparagraphs under Section 12VAC5-590-378 B 1 a, b or c.

Section 12VAC5-590-378 B 1 (a, b, or c) requires this waterworks to monitor (identify frequency) for radiological concentrations at each entry point. Our records indicate that there was a failure to collect the required sample for (specify contaminant(s)) during the (1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup>, 4<sup>th</sup>) quarter of (year) or January 1, (year) to December 31, (year), compliance period.

## **Required Actions**

In accordance with Section 12VAC5-590-540 of the Regulations, you are required to issue a Tier 3 public notice (“Notice”) to the consumers in the area served by the waterworks in accordance with the public notification requirements described below:

**Public Notice:** The Notice requires you to notify consumers in the area served **within 12 months** of learning of the violation. This Notice must be handled as follows:

- You must distribute the Notice no later than *(date)*.
- The Notice must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example), you must also use other delivery methods to provide the Notice to these consumers as well. Examples of other methods include, but are not limited to, publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the waterworks.
- You may choose to include the Notice as an enclosure with or as an integral part of your Consumer Confidence Report (CCR) for *(year)* water quality data. To do so, the combined CCR and public Notice must be distributed to consumers by July 1, *(year)*, AND you must take steps to ensure that the CCR and public Notice reach all persons served by the waterworks. This requirement is more stringent than the “good faith effort” requirements for distributing the CCR alone.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved.)*
- You must repeat distribution of the Notice annually for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved.)*

**Draft Notice:** Attached is a draft Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule*

and/or completion dates for each corrective action.)

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at (phone number) or email at (email address).

Sincerely,

Name & Title

Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 3 Public Notice
2. Certification Form

cc: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director. Administrator/Manager, name of County, County

**NOTICE TO CONSUMERS  
of the Name WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Failure to Monitor for Radiological Contaminants**

Our water system violated drinking water requirements over the past year. Although this situation does not require that you take immediate action, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation.

*\*We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During [compliance period], we [‘did not monitor or test’ or ‘did not complete all monitoring or testing’] for [specify contaminant(s)] and therefore cannot be sure of the quality of your drinking water during that time.\**

*[Field staff may want to further describe the violation, to include additional specifics, such as other observations to summarize situational correctness].*

**What should I do?**

There is nothing you need to do at this time. You may continue to drink the water. If a situation arises where the water is no longer safe to drink, you will be notified within 24 hours.

The table below lists the contaminant(s) we did not properly test for during the last year, how often we are supposed to sample for Radiological contaminants, how many samples we are supposed to take, how many samples we took, when samples should have been taken, and the date on which follow-up samples were (or will be) taken.

Contaminant	Required sampling frequency	Number of samples taken	When samples should have been taken	When samples were taken
“Example”	1 sample every three years	0	2009-2011	February 2012

**What is being done?**

*[Field staff to describe the corrective action(s) required by the waterworks owner and when the violation is expected to be resolved.]*

For more information, please contact *(name of contact)* at *(phone number)* or *(mailing address)*.

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing*

*copies by hand or mail.\**

This notice is being sent to you by (system). State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Failure to Monitor for Radiological Contaminants (specify contaminant) -(tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
(Community Waterworks)

By direct (hand) delivery on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_

Provided to the following broadcast media (list: television/radio/website/social media) on

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ (method and date)

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address



**FM-C14-T3-Attachment 43.** Failure to Monitor for Nitrite.

**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 3 NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

**NOTICE OF ALLEGED VIOLATION**

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Failure to Monitor for Nitrite

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-372 D 4 of the Virginia *Waterworks Regulations* (“Regulations”) for failing to complete the required monitoring for nitrate during the (compliance period). The Regulations characterize this alleged violation as a Tier 3 violation.

Section 12VAC5-590-372 D 4 states, in part, “Monitoring to determine compliance with the [Primary Maximum Contaminant Level] for nitrite specified in Table 340.1 shall be conducted....”

*(Field staff to specify the specific requirement not complied with by selecting one of the following citations and deleting those that do not apply.)*

Section 12VAC5-590-372 D 4 a states, “The owner shall collect one sample at each entry point during the initial compliance period.”

Section 12VAC5-590-372 D 4 b states, “After the initial sample, the owner of a waterworks where an analytical result for nitrite is less than 50% of the [Primary Maximum Contaminant Level] shall monitor at the frequency specified by the [Virginia Department of Health].”

Section 12VAC5-590-372 D 4 c states, “The repeat monitoring frequency for an owner shall be quarterly for at least one year following any one sample in which the concentration is greater than 50% of the [Primary Maximum Contaminant Level]. The [Virginia Department of Health] may

allow an owner to reduce the sampling frequency to annually after determining the analysis results are reliably and consistently less than the [Primary Maximum Contaminant Level].”

Section 12VAC5-590-372 D 4 d states, “The owner of a waterworks that is monitoring annually shall collect each subsequent sample during the quarter that previously resulted in the highest analytical result.”

*(Field staff may want to insert a narrative to further describe this violation situation that resulted in this NOAV, to include specifics such as observations, concentration levels, dates, times, etc. where appropriate).*

### **Required Actions**

In accordance with Section 12VAC5-590-540 of the Regulations, you are required to issue a Tier 3 public notice (“Notice”) to the consumers in the area served by the waterworks in accordance with the public notification requirements described below:

**Public Notice:** The Notice requires you to notify consumers in the area served **within 12 months** of learning of the violation. This Notice must be handled as follows:

- You must distribute the Notice no later than *(date)*.
- The Notice must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example), you must also use other delivery methods to provide the Notice to these consumers as well. Examples of other methods include, but are not limited to, publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the waterworks.
- You may choose to include the Notice as an enclosure with or as an integral part of your Consumer Confidence Report (CCR) for *(year)* water quality data. To do so, the combined CCR and public Notice must be distributed to consumers by July 1, *(year)*, AND you must take steps to ensure that the CCR and public Notice reach all persons served by the waterworks. This requirement is more stringent than the “good faith effort” requirements for distributing the CCR alone.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved.)*
- You must repeat distribution of the Notice annually for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved.)*

**Draft Notice:** Attached is a draft Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative

in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than (date), you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** (Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any "calling out" for a mutually agreeable schedule and/or completion dates for each corrective action.)

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at (phone number) or email at (email address).

Sincerely,

Name & Title  
Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 3 Public Notice
2. Certification Form

cc: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director. Administrator/Manager, name of County, County

**NOTICE TO CONSUMERS  
of the Name WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Failure to Monitor for Nitrite**

Our water system violated drinking water requirements over the past year. Although this situation does not require that you take immediate action, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation.

*\*We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During [compliance period], we ['did not monitor or test' or 'did not complete all monitoring or testing'] for [specify contaminant(s)] and therefore cannot be sure of the quality of your drinking water during that time.\**

*[Field staff may want to further describe the violation, to include additional specifics, such as other observations to summarize situational correctness].*

**What should I do?**

There is nothing you need to do at this time. You may continue to drink the water. If a situation arises where the water is no longer safe to drink, you will be notified within 24 hours.

The table below lists the contaminant(s) we did not properly test for during the last year, how often we are supposed to sample for Nitrite, how many samples we are supposed to take, how many samples we took, when samples should have been taken, and the date on which follow-up samples were (or will be) taken.

Contaminant	Required sampling frequency	Number of samples taken	When samples should have been taken	When samples were taken
"Example"	1 sample every three years	0	2009-2011	February 2012

**What is being done?**

*[Field staff to describe the corrective action(s) required by the waterworks owner and when the violation is expected to be resolved.]*

For more information, please contact *(name of contact)* at *(phone number)* or *(mailing address)*.

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing*

*copies by hand or mail.\**

This notice is being sent to you by (system). State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Failure to Monitor for Nitrite *-(tracking info – monitoring period)*

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
*(Community/Noncommunity Waterworks)*

By direct (hand) delivery on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_

Provided to the following broadcast media *(list: television/radio/website/social media)* on

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ *(method and date)*

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

ATTN: COMPLIANCE SPECIALIST  
Name Field Office, Office of Drinking Water  
Address

**FM-C14-T3-Attachment 44.** Failure to Monitor for Nitrate.

**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 3 NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

### NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Failure to Monitor for Nitrate

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-372 D 3 of the Virginia *Waterworks Regulations* (“Regulations”) for failing to complete the required monitoring for the nitrate during the (compliance period). The Regulations characterize this alleged violation as a Tier 3 violation.

Section 12VAC5-590-372 D 3 states, in part, “Monitoring to determine compliance with the [Primary Maximum Contaminant Level] for nitrate...specified in Table 340.1 shall be conducted...”

*(Field staff to specify the specific requirement not complied with by selecting one of the following citations and deleting those that do not apply.)*

Section 12VAC5-590-372 D 3 a states, “The owner shall collect one sample annually at each groundwater source entry point.”

Section 12VAC5-590-372 D 3 b states, “The owner shall collect one sample quarterly at each surface water source entry point, in whole or in part.”

Section 12VAC5-590-372 D 3 c states, “For groundwater source entry points at community and NTNCs, the repeat monitoring frequency shall be quarterly for at least one year following any one sample in which the concentration is greater than 50% of the [Primary Maximum Contaminant Level]. After four consecutive quarters of monitoring, the [Virginia Department of Health] may allow the owner to reduce the sampling frequency to annually after determining the results are

reliably and consistently less than the [Primary Maximum Contaminant Level].”

Section 12VAC5-590-372 D 3 d states, “For surface water source entry points, in whole or in part, the [Virginia Department of Health] may allow the owner to reduce the sampling frequency to annually if all analytical results from four consecutive quarters are less than 50% of the [Primary Maximum Contaminant Level]. The waterworks shall return to quarterly monitoring if the concentration found in any one sample is greater than or equal to 50% of the PMCL.”

*(Field staff may want to insert a narrative to further describe this violation situation that resulted in this NOAV, to include specifics such as observations, concentration levels, dates, times, etc. where appropriate).*

### **Required Actions**

In accordance with Section 12VAC5-590-540 of the Regulations, you are required to issue a Tier 3 public notice (“Notice”) to the consumers in the area served by the waterworks in accordance with the public notification requirements described below:

**Public Notice:** The Notice requires you to notify consumers in the area served **within 12 months** of learning of the violation. This Notice must be handled as follows:

- You must distribute the Notice no later than *(date)*.
- The Notice must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example), you must also use other delivery methods to provide the Notice to these consumers as well. Examples of other methods include, but are not limited to, publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the waterworks.
- You may choose to include the Notice as an enclosure with or as an integral part of your Consumer Confidence Report (CCR) for *(year)* water quality data. To do so, the combined CCR and public Notice must be distributed to consumers by July 1, *(year)*, AND you must take steps to ensure that the CCR and public Notice reach all persons served by the waterworks. This requirement is more stringent than the “good faith effort” requirements for distributing the CCR alone.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved.)*
- You must repeat distribution of the Notice annually for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved.)*

**Draft Notice:** Attached is a draft Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of



the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any "calling out" for a mutually agreeable schedule and/or completion dates for each corrective action.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at *(phone number)* or email at *(email address)*.

Sincerely,

*Name & Title*  
*Field office name*

*ABC:xyz*

*Enclosures: (If applicable, insert any other relevant information)*

1. Draft Tier 3 Public Notice
2. Certification Form

*cc: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director. Administrator/Manager, name of County, County*

**NOTICE TO CONSUMERS  
of the Name WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Failure to Monitor for Nitrate**

Our water system violated drinking water requirements over the past year. Although this situation does not require that you take immediate action, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation.

*\*We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During [compliance period], we [‘did not monitor or test’ or ‘did not complete all monitoring or testing’] for [specify contaminant(s)] and therefore cannot be sure of the quality of your drinking water during that time.\**

[Field staff may want to further describe the violation, to include additional specifics, such as other observations to summarize situational correctness].

**What should I do?**

There is nothing you need to do at this time. You may continue to drink the water. If a situation arises where the water is no longer safe to drink, you will be notified within 24 hours.

The table below lists the contaminant(s) we did not properly test for during the last year, how often we are supposed to sample for Nitrate, how many samples we are supposed to take, how many samples we took, when samples should have been taken, and the date on which follow-up samples were (or will be) taken.

Contaminant	Required sampling frequency	Number of samples taken	When samples should have been taken	When samples were taken
“Example”	1 sample every three years	0	2009-2011	February 2012

**What is being done?**

[Field staff to describe the corrective action(s) required by the waterworks owner and when the violation is expected to be resolved.]

For more information, please contact (name of contact) at (phone number) or (mailing address).

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing*

*copies by hand or mail.\**

This notice is being sent to you by (system). State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Failure to Monitor for Nitrate -(tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
*(Community/Noncommunity Waterworks)*

By direct (hand) delivery on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_  
\_\_\_\_\_

Provided to the following broadcast media (list: television/radio/website/social media) on

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ (method and date)

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address

**FM-C14-T3-Attachment 45.** Failure to Monitor for Combined Nitrate-Nitrite as Nitrogen.

**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 3 NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

### NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner

Address 1

Address 2

City, State, Zip

Re: Failure to Monitor for Combined Nitrate-Nitrite as Nitrogen

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-372 D 3 of the Virginia *Waterworks Regulations* (“Regulations”) for failing to complete the required monitoring for combined nitrate-nitrite as nitrogen during the (compliance period). The Regulations characterize this alleged violation as a Tier 3 violation.

Section 12VAC5-590-372 D 3 states, in part, “Monitoring to determine compliance with the [Primary Maximum Contaminant Level] for...combined nitrate-nitrite as nitrogen specified in Table 340.1 shall be conducted...”

*(Field staff to specify the specific requirement not complied with by selecting one of the following citations and deleting those that do not apply.)*

Section 12VAC5-590-372 D 3 a states, “The owner shall collect one sample annually at each groundwater source entry point.”

Section 12VAC5-590-372 D 3 b states, “The owner shall collect one sample quarterly at each surface water source entry point, in whole or in part.”

Section 12VAC5-590-372 D 3 c states, “For groundwater source entry points at community and [nontransient noncommunity waterworks], the repeat monitoring frequency shall be quarterly for at least one year following any one sample in which the concentration is greater than 50% of the [Primary Maximum Contaminant Level]. After four consecutive quarters of monitoring, the

[Virginia Department of Health] may allow the owner to reduce the sampling frequency to annually after determining the results are reliably and consistently less than the [Primary Maximum Contaminant Level].”

Section 12VAC5-590-372 D 3 d states, “For surface water source entry points, in whole or in part, the [Virginia Department of Health] may allow the owner to reduce the sampling frequency to annually if all analytical results from four consecutive quarters are less than 50% of the [Primary Maximum Contaminant Level]. The waterworks shall return to quarterly monitoring if the concentration found in any one sample is greater than or equal to 50% of the [Primary Maximum Contaminant Level].”

*(Field staff may want to insert a narrative to further describe this violation situation that resulted in this NOAV, to include specifics such as observations, concentration levels, dates, times, etc. where appropriate).*

### **Required Actions**

In accordance with Section 12VAC5-590-540 of the Regulations, you are required to issue a Tier 3 public notice (“Notice”) to the consumers in the area served by the waterworks in accordance with the public notification requirements described below:

**Public Notice:** The Notice requires you to notify consumers in the area served **within 12 months** of learning of the violation. This Notice must be handled as follows:

- You must distribute the Notice no later than *(date)*.
- The Notice must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example), you must also use other delivery methods to provide the Notice to these consumers as well. Examples of other methods include, but are not limited to, publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the waterworks.
- You may choose to include the Notice as an enclosure with or as an integral part of your Consumer Confidence Report (CCR) for *(year)* water quality data. To do so, the combined CCR and public Notice must be distributed to consumers by July 1, *(year)*, AND you must take steps to ensure that the CCR and public Notice reach all persons served by the waterworks. This requirement is more stringent than the “good faith effort” requirements for distributing the CCR alone.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved.)*
- You must repeat distribution of the Notice annually for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved.)*

**Draft Notice:** Attached is a draft Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it

contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any "calling out" for a mutually agreeable schedule and/or completion dates for each corrective action.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at *(phone number)* or email at *(email address)*.

Sincerely,

*Name & Title*  
*Field office name*

*ABC:xyz*

*Enclosures: (If applicable, insert any other relevant information)*

1. Draft Tier 3 Public Notice
2. Certification Form

*cc: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director. Administrator/Manager, name of County, County*

**NOTICE TO CONSUMERS  
of the Name WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Failure to Monitor for Combined Nitrate-Nitrite as Nitrogen**

Our water system violated drinking water requirements over the past year. Although this situation does not require that you take immediate action, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation.

*\*We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During [compliance period], we [‘did not monitor or test’ or ‘did not complete all monitoring or testing’] for [specify contaminant(s)] and therefore cannot be sure of the quality of your drinking water during that time.\**

*[Field staff may want to further describe the violation, to include additional specifics, such as other observations to summarize situational correctness].*

**What should I do?**

There is nothing you need to do at this time. You may continue to drink the water. If a situation arises where the water is no longer safe to drink, you will be notified within 24 hours.

The table below lists the contaminant(s) we did not properly test for during the last year, how often we are supposed to sample for Combined Nitrate-Nitrite as Nitrogen, how many samples we are supposed to take, how many samples we took, when samples should have been taken, and the date on which follow-up samples were (or will be) taken.

Contaminant	Required sampling frequency	Number of samples taken	When samples should have been taken	When samples were taken
“Example”	1 sample every three years	0	2009-2011	February 2012

**What is being done?**

*[Field staff to describe the corrective action(s) required by the waterworks owner and when the violation is expected to be resolved.]*

For more information, please contact *(name of contact)* at *(phone number)* or *(mailing address)*.

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing*



*copies by hand or mail.\**

This notice is being sent to you by (system). State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Failure to Monitor for Combined Nitrate-Nitrite as Nitrogen -(tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
*(Community/Noncommunity Waterworks)*

By direct (hand) delivery on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_

Provided to the following broadcast media *(list: television/radio/website/social media)* on

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ *(method and date)*

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

ATTN: COMPLIANCE SPECIALIST  
Name Field Office, Office of Drinking Water  
Address

**FM-C14-T3-Attachment 46.** Failure to Monitor for Chlorine Dioxide.

**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 3 NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

### NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Failure to Monitor for Chlorine Dioxide

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-374 I 2 a of the Virginia *Waterworks Regulations* (“Regulations”) for failing to perform the required chlorine dioxide monitoring at the waterworks. The Regulations characterize this alleged violation as a Tier 3 violation.

Section 12VAC5-590 374 I 2 a states, in part, “The owner of a waterworks that uses chlorine dioxide for disinfection or oxidation shall collect daily samples at the entrance to the distribution system. For any daily sample that exceeds the [Maximum Residual Disinfectant Level]..., the owner shall collect samples in the distribution system the following day at the locations required..., in addition to the sample required at the entrance to the distribution system.”

[Field staff to insert a narrative to authenticate the situational correctness of this NOAV based on the selection(s) above, taking into account also the urgency of the situation. Narrative to include dates and times where appropriate.]

#### **Required Actions**

In accordance with Section 12VAC5-590-540 of the Regulations, you are required to issue a Tier 3 public notice (“Notice”) to the consumers in the area served by the waterworks in accordance with the public notification requirements described below:

**Public Notice:** The Notice requires you to notify consumers in the area served **within 12 months** of learning of the violation. This Notice must be handled as follows:

- You must distribute the Notice no later than *(date)*.
- The Notice must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example), you must also use other delivery methods to provide the Notice to these consumers as well. Examples of other methods include, but are not limited to, publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the waterworks.
- You may choose to include the Notice as an enclosure with or as an integral part of your Consumer Confidence Report (CCR) for *(year)* water quality data. To do so, the combined CCR and public Notice must be distributed to consumers by July 1, *(year)*, AND you must take steps to ensure that the CCR and public Notice reach all persons served by the waterworks. This requirement is more stringent than the “good faith effort” requirements for distributing the CCR alone.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved.)*
- You must repeat distribution of the Notice annually for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved.)*

**Draft Notice:** Attached is a draft Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at (phone number) or email at (email address).

Sincerely,

Name & Title  
Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 3 Public Notice
2. Certification Form

ec: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director. Administrator/Manager, name of County, County

**NOTICE TO CONSUMERS  
of the Name WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Failure to Monitor for Chlorine Dioxide**

Our water system violated drinking water requirements over the past year. Although this situation does not require that you take immediate action, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation.

*\*We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During [compliance period], we [‘did not monitor or test’ or ‘did not complete all monitoring or testing’] for [specify contaminant(s)] and therefore cannot be sure of the quality of your drinking water during that time.\**

*[Field staff may want to further describe the violation, to include additional specifics, such as other observations to summarize situational correctness].*

**What should I do?**

There is nothing you need to do at this time. You may continue to drink the water. If a situation arises where the water is no longer safe to drink, you will be notified within 24 hours.

The table below lists the contaminant(s) we did not properly test for during the last year, how often we are supposed to sample for Chlorine Dioxide, how many samples we are supposed to take, how many samples we took, when samples should have been taken, and the date on which follow-up samples were (or will be) taken.

Contaminant	Required sampling frequency	Number of samples taken	When samples should have been taken	When samples were taken
“Example”	1 sample every three years	0	2009-2011	February 2012

**What is being done?**

*(Field staff to describe the corrective action(s) required by the waterworks owner and when the violation is expected to be resolved.)*

For more information, please contact *(name of contact)* at *(phone number)* or *(mailing address)*.

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes,*

*schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by (system). State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Failure to Monitor for Chlorine Dioxide - (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
*(Community Waterworks)*

By direct (hand) delivery on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_  
\_\_\_\_\_

Provided to the following broadcast media (list: television/radio/website/social media) on

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ (method and date)

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

ATTN: COMPLIANCE SPECIALIST  
Name Field Office, Office of Drinking Water  
Address



**FM-C14-T3-Attachment 47.** Failure to Monitor for Inorganic Chemicals (IOCs) - (Specify Contaminant(s)).

**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 3 NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

### NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Failure to Monitor for Inorganic Chemicals - (Specify Contaminant(s))

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of Section 12VAC5-590-372 A [*staff to add additional citations as necessary, see below options*] of the Virginia *Waterworks Regulations* (“Regulations”) for failing to complete the required monitoring for inorganic chemicals (IOCs) [*staff to specify name(s) of contaminant(s)*] during the (compliance period).

Section 12VAC5-590-372 A states, “The owner of a community waterworks or a [nontransient noncommunity waterworks] shall conduct monitoring to determine compliance with the [Primary Maximum Contaminant Levels] and [Secondary Maximum Contaminant Levels] listed in Table 340.1 in accordance with this section. The owner of a [transient noncommunity waterworks] shall conduct monitoring to determine compliance with the nitrate, nitrite, and nitrate-nitrite [Primary Maximum Contaminant Levels] listed in Table 340.1 in accordance with this section.”

(Field staff may want to insert a narrative to further describe this violation situation that resulted in this NOAV, to include specifics such as observations, concentration levels, dates, times, etc. where appropriate; e.g., choose from options below.)

*(Retain the applicable text below)*

(Option 1)

The Regulations require waterworks using surface water, in whole or in part, to monitor annually for inorganic chemical concentrations at each waterworks entry point. Our records indicate that there was a failure to collect the required samples in (year) for this waterworks entry point at (name entry

point).

Section 12VAC5-590-372 D 2 states, in part, “Antimony, arsenic, barium, beryllium, cadmium, chromium, cyanide (as free cyanide), fluoride, mercury, nickel, selenium, and thallium. Monitoring to determine compliance with the [Primary Maximum Contaminant Level] for these contaminants specified in Table 340.1 shall be conducted as follows: ...b. The owner shall collect one sample annually at each surface water source entry point, in whole or in part....”

Section 12VAC5-590-372 D 5 states, in part, “Aluminum, chloride, copper, corrosivity, fluoride, foaming agents (surfactants), iron, manganese, silver, sulfate, and zinc. Monitoring to determine compliance with the [Secondary Maximum Contaminant Level] for these contaminants specified in Table 340.1 shall be conducted as follows: ... b. The owner shall collect one sample annually at each surface water source entry point, in whole or in part.”

### (Option 2)

The Regulations require waterworks using groundwater to monitor once per three-year compliance period for inorganic chemical concentrations at each waterworks entry point. Our records indicate that there was a failure to collect the required sample(s) in the compliance period starting January 1, (year) and ending December 31, (year).

Section 12VAC5-590-372 D 2 states, in part, “Antimony, arsenic, barium, beryllium, cadmium, chromium, cyanide (as free cyanide), fluoride, mercury, nickel, selenium, and thallium. Monitoring to determine compliance with the [Primary Maximum Contaminant Level] for these contaminants specified in Table 340.1 shall be conducted as follows: a. The owner shall collect one sample at each groundwater source entry point during each compliance period.”

Section 12VAC5-590-372 D 5 states, in part, “Aluminum, chloride, copper, corrosivity, fluoride, foaming agents (surfactants), iron, manganese, silver, sulfate, and zinc. Monitoring to determine compliance with the [Secondary Maximum Contaminant Level] for these contaminants specified in Table 340.1 shall be conducted as follows: a. The owner shall collect one sample at each groundwater source entry point during each compliance period.”

The *Regulations* classify this alleged violation as Tier 3 in Section 12VAC5-590-540 A 3 a of the Regulations, which includes as Tier 3 violations, “[m]onitoring violations, except where a Tier 1 public notice is required....”

### **Required Actions**

In accordance with Section 12VAC5-590-540 of the Regulations, you are required to issue a Tier 3 public notice (“Notice”) to the consumers in the area served by the waterworks in accordance with the public notification requirements described below:

**Public Notice:** The Notice requires you to notify consumers in the area served **within 12 months** of learning of the violation. This Notice must be handled as follows:

- You must distribute the Notice no later than (date).

- The Notice must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example), you must also use other delivery methods to provide the Notice to these consumers as well. Examples of other methods include, but are not limited to, publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the waterworks.
- You may choose to include the Notice as an enclosure with or as an integral part of your Consumer Confidence Report (CCR) for *(year)* water quality data. To do so, the combined CCR and public Notice must be distributed to consumers by July 1, *(year)*, AND you must take steps to ensure that the CCR and public Notice reach all persons served by the waterworks. This requirement is more stringent than the “good faith effort” requirements for distributing the CCR alone.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved.)*
- You must repeat distribution of the Notice annually for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved.)*

**Draft Notice:** Attached is a draft Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at *(phone number)* or email at *(email address)*.

Sincerely,

Name & Title  
Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 3 Public Notice
2. Certification Form

cc: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director.  
Administrator/Manager, name of County, County

**NOTICE TO CONSUMERS  
of the Name WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Failure to Monitor for Inorganic Chemicals - (Specify Contaminant(s))**

Our water system violated drinking water requirements over the past year. Although this situation does not require that you take immediate action, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation.

*\*We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During [compliance period], we [‘did not monitor or test’ or ‘did not complete all monitoring or testing’] for [specify contaminant(s)] and therefore cannot be sure of the quality of your drinking water during that time.\**

*[Field staff may want to further describe the violation, to include additional specifics, such as other observations to summarize situational correctness].*

**What should I do?**

There is nothing you need to do at this time. You may continue to drink the water. If a situation arises where the water is no longer safe to drink, you will be notified within 24 hours.

The table below lists the contaminant(s) we did not properly test for during the last year, how often we are supposed to sample for Inorganic Chemicals (IOCs), how many samples we are supposed to take, how many samples we took, when samples should have been taken, and the date on which follow-up samples were (or will be) taken.

Contaminant	Required sampling frequency	Number of samples taken	When samples should have been taken	When samples were taken
“Example”	1 sample every three years	0	2009-2011	February 2012

**What is being done?**

*[Field staff to describe the corrective action(s) required by the waterworks owner and when the violation is expected to be resolved.]*

For more information, please contact *(name of contact)* at *(phone number)* or *(mailing address)*.

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing*

*copies by hand or mail.\**

This notice is being sent to you by (system). State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Failure to Monitor for Inorganic Chemicals - (Specify Contaminant(s))--(tracking info  
– monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
(Community/Noncommunity Waterworks)

By direct (hand) delivery on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_

Provided to the following broadcast media (list: television/radio/website/social media) on

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ (method and date)

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

ATTN: COMPLIANCE SPECIALIST  
Name Field Office, Office of Drinking Water  
Address

**FM-C14-T3-Attachment 48.** Failure to Monitor for Bromate.

**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 3 NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

**NOTICE OF ALLEGED VIOLATION**

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Failure to Monitor for Bromate

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-374 H (1 or 2) of the Virginia *Waterworks Regulations* (“Regulations”) for failing to complete the required monitoring for bromate during the (compliance period). The Regulations characterize this alleged violation as a Tier 3 violation.

(select the applicable citation above and retain the applicable paragraph below)

Section 12VAC5-590-374 H 1 states, “The owner of a community waterworks or a [nontransient noncommunity waterworks] water treatment plant using ozone for disinfection or oxidation shall collect one sample per month and analyze it for bromate. The owner shall collect samples monthly at the entrance to the distribution system while the ozonation system is operating under normal conditions.”

Section 12VAC5-590-374 H 2 states, “The owner required to analyze for bromate may reduce monitoring from monthly to quarterly if the waterworks [Running Annual Average] bromate concentration is less than or equal to 0.0025 mg/L based on monthly bromate measurements under subdivision H 1 of this section for the most recent four quarters. If a waterworks has qualified for reduced bromate monitoring under this subdivision, then the owner may remain on reduced monitoring as long as the [Running Annual Average] of quarterly bromate samples is equal to or less than 0.0025 mg/L. If the [Running Annual Average] bromate concentration is greater than 0.0025 mg/L, then the owner shall resume routine monitoring required by subdivision H 1 of this section.”

(Field staff may want to insert a narrative to further describe this violation situation that resulted in



*this NOAV, to include specifics such as observations, concentration levels, dates, times, etc. where appropriate).*

### **Required Actions**

In accordance with Section 12VAC5-590-540 of the Regulations, you are required to issue a Tier 3 public notice (“Notice”) to the consumers in the area served by the waterworks in accordance with the public notification requirements described below:

**Public Notice:** The Notice requires you to notify consumers in the area served **within 12 months** of learning of the violation. This Notice must be handled as follows:

- You must distribute the Notice no later than *(date)*.
- The Notice must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example), you must also use other delivery methods to provide the Notice to these consumers as well. Examples of other methods include, but are not limited to, publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the waterworks.
- You may choose to include the Notice as an enclosure with or as an integral part of your Consumer Confidence Report (CCR) for *(year)* water quality data. To do so, the combined CCR and public Notice must be distributed to consumers by July 1, *(year)*, AND you must take steps to ensure that the CCR and public Notice reach all persons served by the waterworks. This requirement is more stringent than the “good faith effort” requirements for distributing the CCR alone.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved.)*
- You must repeat distribution of the Notice annually for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved.)*

**Draft Notice:** Attached is a draft Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-*

up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at (phone number) or email at (email address).

Sincerely,

Name & Title  
Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 3 Public Notice
2. Certification Form

cc: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director. Administrator/Manager, name of County, County

**NOTICE TO CONSUMERS  
of the Name WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Failure to Monitor for Bromate**

Our water system violated drinking water requirements over the past year. Although this situation does not require that you take immediate action, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation.

*\*We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During [compliance period], we [‘did not monitor or test’ or ‘did not complete all monitoring or testing’] for [specify contaminant(s)] and therefore cannot be sure of the quality of your drinking water during that time.\**

*[Field staff may want to further describe the violation, to include additional specifics, such as other observations to summarize situational correctness].*

**What should I do?**

There is nothing you need to do at this time. You may continue to drink the water. If a situation arises where the water is no longer safe to drink, you will be notified within 24 hours.

The table below lists the contaminant(s) we did not properly test for during the last year, how often we are supposed to sample for Bromate, how many samples we are supposed to take, how many samples we took, when samples should have been taken, and the date on which follow-up samples were (or will be) taken.

Contaminant	Required sampling frequency	Number of samples taken	When samples should have been taken	When samples were taken
“Example”	1 sample every three years	0	2009-2011	February 2012

**What is being done?**

*[Field staff to describe the corrective action(s) required by the waterworks owner and when the violation is expected to be resolved.]*

For more information, please contact *(name of contact)* at *(phone number)* or *(mailing address)*.

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing*

*copies by hand or mail.\**

This notice is being sent to you by *(system)*. State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.

Our water system recently violated a drinking water regulation. Although this situation does not require that you take immediate action, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation. During the *(compliance period)*, our waterworks failed to complete the required monitoring for bromate. *[Field staff may want to further describe the violation, to include additional specifics, such as other observations to summarize situational correctness].*

*\*Some people who drink water containing bromate in excess of the PMCL over many years may have an increased risk of getting cancer.\**

### **What should I do?**

There is nothing you need to do at this time. You may continue to drink the water. If a situation arises where the water is no longer safe to drink, you will be notified within 24 hours.

### **What is being done?**

*(Field staff to describe the corrective action(s) required by the waterworks owner and when the violation is expected to be resolved.)*

For more information, please contact *(name of contact)* at *(phone number)* or *(mailing address)*.

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by *(system)*. State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Failure to Monitor for Bromate -*(tracking info – monitoring period)*

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
*(Community/Noncommunity Waterworks)*

By direct (hand) delivery on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_

Provided to the following broadcast media *(list: television/radio/website/social media)* on

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ *(method and date)*

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address

**FM-C14-T3-Attachment 49.** Failure to Install and Operate OCCT under LCR.

**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 3 NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

### NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Failure to Install and Operate Optimum Corrosion Control Treatment (OCCT) under LCR

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-405 A 1 of the Virginia *Waterworks Regulations* (“Regulations”) for failure to install and operate optimum corrosion control treatment (OCCT) as required under the Lead and Copper Rule (LCR). The Regulations characterize this alleged violation as a Tier 3 violation.

Section 12VAC5-590-405 A 1 states, in part, “The owner of a community waterworks or a [nontransient noncommunity waterworks] shall install and operate optimum corrosion control treatment by completing the corrosion control treatment requirements...which are applicable to these waterworks....”

Field staff may want to insert a narrative to further describe this violation situation in this NOAV. Narrative to include observations, sampling results, dates, times, etc. where appropriate)

#### **Required Actions**

In accordance with Section 12VAC5-590-540 of the Regulations, you are required to issue a Tier 3 public notice (“Notice”) to the consumers in the area served by the waterworks in accordance with the public notification requirements described below:

**Public Notice:** The Notice requires you to notify consumers in the area served **within 12 months** of learning of the violation. This Notice must be handled as follows:

- You must distribute the Notice no later than *(date)*.
- The Notice must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example), you must also use other delivery methods to provide the Notice to these consumers as well. Examples of other methods include, but are not limited to, publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the waterworks.
- You may choose to include the Notice as an enclosure with or as an integral part of your Consumer Confidence Report (CCR) for *(year)* water quality data. To do so, the combined CCR and public Notice must be distributed to consumers by July 1, *(year)*, AND you must take steps to ensure that the CCR and public Notice reach all persons served by the waterworks. This requirement is more stringent than the “good faith effort” requirements for distributing the CCR alone.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved.)*
- You must repeat distribution of the Notice annually for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved.)*

**Draft Notice:** Attached is a draft Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27 and 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at (phone number) or email at (email address).

Sincerely,

Name & Title  
Field office name

ABC.xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 3 Public Notice
2. Certification Form

cc: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director. Administrator/Manager, name of County, County



**NOTICE TO CONSUMERS  
of the Name WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Failure to Install and Operate Optimum Corrosion Control Treatment (OCCT) under  
LCR**

Our water system recently failed to install and operate optimum corrosion control treatment (OCCT) as required following lead and copper action level exceedances. Although this situation does not require that you take immediate action, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation. During *(compliance period)*, we failed to install and operate the OCCT. *[Field staff may want to further describe the violation, to include additional specifics, such as other observations to summarize situational correctness].*

**What should I do?**

There is nothing you need to do at this time. You may continue to drink the water. If a situation arises where the water is no longer safe to drink, you will be notified within 24 hours.

**What is being done?**

*[Field staff to describe the corrective action(s) required by the waterworks owner and when the violation is expected to be resolved.]*

For more information, please contact *(name of contact)* at *(phone number)* or *(mailing address)*.

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by *(system)*. State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Failure to Install and Operate Optimum Corrosion Control Treatment (OCCT) under LCR - (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
*(Community/Noncommunity Waterworks)*

By direct (hand) delivery on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_

Provided to the following broadcast media *(list: television/radio/website/social media)* on

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ *(method and date)*

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address

**FM-C14-T3-Attachment 50.** Failure to Have a Monitoring Plan under LT2 Rule.

**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 3 NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

## NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Failure to Have a Monitoring Plan under LT2 Rule

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-401 B of the Virginia *Waterworks Regulations* (“Regulations”) for failing to establish a monitoring plan under the LT2 Rule for source water monitoring. The Regulations characterize this alleged violation as a Tier 3 reporting violation.

Section 12VAC5-590-401 B states, in part, “The owner shall conduct an initial and a second round of source water monitoring for each water treatment plant that treats a surface water source, a [groundwater under the direct influence of surface water] source, or both. This monitoring may include sampling for Cryptosporidium, *E. coli*, and turbidity to determine what level, if any, of additional Cryptosporidium treatment is required.... The owner shall conduct the...monitoring on the schedule in subdivision B 3 of this section unless the monitoring avoidance criteria in subdivision B 4 of this section are met.”

(Field staff may want to insert a narrative to further describe this violation situation in this NOAV. Narrative to include observations, sampling results, dates, times, etc. where appropriate.)

### **Required Actions**

In accordance with Section 12VAC5-590-540 of the Regulations, you are required to issue a Tier 3 public notice (“Notice”) to the consumers in the area served by the waterworks in accordance with the public notification requirements described below:

**Public Notice:** The Notice requires you to notify consumers in the area served **within 12 months** of learning of the violation. This Notice must be handled as follows:

- You must distribute the Notice no later than *(date)*.
- The Notice must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example), you must also use other delivery methods to provide the Notice to these consumers as well. Examples of other methods include, but are not limited to, publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the waterworks.
- You may choose to include the Notice as an enclosure with or as an integral part of your Consumer Confidence Report (CCR) for *(year)* water quality data. To do so, the combined CCR and public Notice must be distributed to consumers by July 1, *(year)*, AND you must take steps to ensure that the CCR and public Notice reach all persons served by the waterworks. This requirement is more stringent than the “good faith effort” requirements for distributing the CCR alone.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved.)*
- You must repeat distribution of the Notice annually for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved.)*

**Draft Notice:** Attached is a draft Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at (phone number) or email at (email address).

Sincerely,

Name & Title  
Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 3 Public Notice
2. Certification Form

ec: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director. Administrator/Manager, name of County, County

**NOTICE TO CONSUMERS  
of the Name WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Failure to Have a Monitoring Plan under LT2 Rule**

Our water system recently failed to comply with the requirement to establish a monitoring plan under the LT2 Rule for source water monitoring. Although this situation does not require that you take immediate action, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation.

During *(compliance period)*, we failed to establish a monitoring plan under the LT2 Rule for source water monitoring, and therefore we cannot be sure of the quality of your drinking water during that time. *[Field staff may want to further describe the violation to include specifics such as observations, concentration levels, dates, times, etc. to summarize situational correctness].*

**What should I do?**

There is nothing you need to do at this time. You may continue to drink the water. If a situation arises where the water is no longer safe to drink, you will be notified within 24 hours.

**What is being done?**

*(Field staff to describe the corrective action(s) required by the waterworks owner and when the violation is expected to be resolved.)*

For more information, please contact *(name of contact)* at *(phone number)* or *(mailing address)*.

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by *(system)*. State Water System ID#: \_\_\_\_\_.  
Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Failure to Have a Monitoring Plan under LT2 Rule - (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
(Community Waterworks)

By direct (hand) delivery on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_

Provided to the following broadcast media (list: television/radio/website/social media) on

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ (method and date)

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address

**FM-C14-T3-Attachment 51.** Failure to Establish a Monitoring Plan for Disinfection Byproducts. **INSTRUCTIONS:** Field staff to use this template to finalize the Tier 3 NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined, and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

### NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Failure to Establish a Monitoring Plan for Disinfection Byproducts

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-374 C of the Virginia *Waterworks Regulations* (“Regulations”) for failing to establish a monitoring plan for disinfection byproducts. The Regulations characterize this alleged violation as a Tier 3 violation.

Section 12VAC5-590-374 C states, in part, “The owner required to monitor under this section shall develop and implement a monitoring plan. The owner shall maintain the plan and make it available for inspection by the [Virginia Department of Health] and the general public.”

(Field staff may want to insert a narrative to further describe this violation situation in this NOAV. Narrative to include observations, sampling results, dates, times, etc. where appropriate.)

#### **Required Actions**

In accordance with Section 12VAC5-590-540 of the Regulations, you are required to issue a Tier 3 public notice (“Notice”) to the consumers in the area served by the waterworks in accordance with the public notification requirements described below:

**Public Notice:** The Notice requires you to notify consumers in the area served **within 12 months** of learning of the violation. This Notice must be handled as follows:

- You must distribute the Notice no later than (date).



- The Notice must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example), you must also use other delivery methods to provide the Notice to these consumers as well. Examples of other methods include, but are not limited to, publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the waterworks.
- You may choose to include the Notice as an enclosure with or as an integral part of your Consumer Confidence Report (CCR) for *(year)* water quality data. To do so, the combined CCR and public Notice must be distributed to consumers by July 1, *(year)*, AND you must take steps to ensure that the CCR and public Notice reach all persons served by the waterworks. This requirement is more stringent than the “good faith effort” requirements for distributing the CCR alone.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved.)*
- You must repeat distribution of the Notice annually for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved.)*

**Draft Notice:** Attached is a draft Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at *(phone number)* or email at *(email address)*.

Sincerely,

Name & Title  
Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 3 Public Notice
2. Certification Form

cc: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director.  
Administrator/Manager, name of County, County

**NOTICE TO CONSUMERS  
of the Name WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Failure to Establish a Monitoring Plan for Disinfection Byproducts**

On *(give date)*, we became aware that our system recently failed to establish a monitoring plan for disinfection byproducts. Although this incident was not an emergency, as our customers, you have a right to know what happened and what we did (are doing) to correct this situation.

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During *(compliance period)*, we did not monitor our waterworks for disinfection byproducts in accordance with an approved plan, and therefore cannot be sure of the quality of your drinking water during that time. *(Field staff may want to include additional clarifying details).*

**What should I do?**

There is nothing you need to do at this time. You may continue to drink the water. If a situation arises where the water is no longer safe to drink, you will be notified within 24 hours.

**What is being done?**

*(Field staff to describe the corrective action(s) required by the waterworks owner and when the violation is expected to be resolved.)*

For more information, please contact *(name of contact)* at *(phone number)* or *(mailing address)*.

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by *(system)*. State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Failure to Establish a Monitoring Plan for Disinfection Byproducts - (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
(Community Waterworks)

By direct (hand) delivery on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_

Provided to the following broadcast media (list: television/radio/website/social media) on

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ (method and date)

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address

**FM-C14-T3-Attachment 52.** Failure to Disclose Terms and Conditions under an Exemption.

**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 3 NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

## NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner

Address 1

Address 2

City, State, Zip

Re: Failure to Disclose Terms and Conditions under an Exemption

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-150 G of the Virginia *Waterworks Regulations* (“Regulations”) for failing to disclose by posting the terms and conditions of an exemption granted by the State Health Commissioner for the (compliance period). The Regulations characterize this alleged violation as a Tier 3 violation.

Section 12VAC5-590-150 G states, “Posting of exemptions. All exemptions granted to any waterworks are nontransferable. Each exemption must be attached to the operation permit of the waterworks to which it is granted. Each exemption is a condition to that permit and is revoked when the permit is revoked.”

Section 12VAC5-590-540 A 3 c requires a Tier 3 public notification for, “Operation under a variance or an exemption to a [Primary Maximum Contaminant Level] or treatment technique requirement[.]”

(Field staff may want to insert a narrative to further describe this violation situation that resulted in this NOAV, to include specifics such as observations, concentration levels, dates, times, etc. where appropriate).

### **Required Actions**

In accordance with Section 12VAC5-590-540 of the Regulations, you are required to issue a Tier 3 public notice (“Notice”) to the consumers in the area served by the waterworks in accordance with

the public notification requirements described below:

**Public Notice:** The Notice requires you to notify consumers in the area served **within 12 months** of learning of the violation. This Notice must be handled as follows:

- You must distribute the Notice no later than *(date)*.
- The Notice must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example), you must also use other delivery methods to provide the Notice to these consumers as well. Examples of other methods include, but are not limited to, publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the waterworks.
- You may choose to include the Notice as an enclosure with or as an integral part of your Consumer Confidence Report (CCR) for *(year)* water quality data. To do so, the combined CCR and public Notice must be distributed to consumers by July 1, *(year)*, AND you must take steps to ensure that the CCR and public Notice reach all persons served by the waterworks. This requirement is more stringent than the “good faith effort” requirements for distributing the CCR alone.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved.)*
- You must repeat distribution of the Notice annually for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved.)*

**Draft Notice:** Attached is a draft Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil

charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at (phone number) or email at (email address).

Sincerely,

Name & Title

Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 3 Public Notice
2. Certification Form

cc: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director. Administrator/Manager, name of County, County

**NOTICE TO CONSUMERS  
of the Name WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Failure to Disclose Terms and Conditions under an Exemption**

Our water system has been granted an exemption from the Virginia Department of Health (“department”) for *[specify contaminant]* on *[give date]*. Although this situation does not require that you take immediate action, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation. An exemption allows eligible systems additional time to comply with a drinking water standard. This waterworks was granted an exemption for *(specify contaminant)* so that we could raise funds for a new treatment process to remove *[specify contaminant]* from our drinking water. During the *(compliance period)*, this waterworks failed to disclose by posting the terms and conditions of an exemption granted by the department. *[Field staff may want to further describe the violation, to include additional specifics, such as other observations to summarize situational correctness].*

**What should I do?**

There is nothing you need to do at this time. You may continue to drink the water. If a situation arises where the water is no longer safe to drink, you will be notified within 24 hours.

*[Provide information about any actions customers or waterworks owner are required to take as a condition of the exemption. For example, if you are required to provide bottled water explain where, when, and how customers will receive bottled water. If you are not required to provide bottled water or there are no corrective actions customers should take, you may state that here].*

**What does this mean?**

This is not an emergency. If it had been, you would have been informed within 24 hours. *[Field staff may consider including health effects language from 12VAC5-590-546 specific to the contaminant for which the exemption applies].*

**What is being done?**

*(Field staff to describe the corrective action(s) required by the waterworks owner and when the violation is expected to be resolved. For example, we have begun the process to secure the necessary funding for a new treatment process. We have [explain steps taken thus far] and anticipate having funding secured by [give date]. At that time, we will [explain your next steps, such as purchase and begin installation of the selected treatment technology]. Our exemption will be reviewed by the department on [date]. As our customer you have the opportunity to provide input if you wish.)*

For more information, please contact *(name of contact)* at *(phone number)* or *(mailing address)*.

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes,*



*schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by (system). State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Failure to Disclose Terms and Conditions under an Exemption - (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
(Community Waterworks)

By direct (hand) delivery on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_

Provided to the following broadcast media (list: television/radio/website/social media) on

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ (method and date)

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address

**FM-C14-T3-Attachment 53.** Failure to Disclose Terms and Conditions under a Variance.

**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 3 NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

## NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner

Address 1

Address 2

City, State, Zip

Re: Failure to Disclose Terms and Conditions under a Variance

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-140 I of the Virginia *Waterworks Regulations* (“Regulations”) for failing to disclose by posting the terms and conditions of a variance granted by the State Health Commissioner for the (compliance period). The Regulations characterize this alleged violation as a Tier 3 violation.

Section 12VAC5-590-140 I states, “Posting of variances. All variances granted to any waterworks are nontransferable. Each variance must be attached to the permit of the waterworks to which it is granted. Each variance is a condition to that permit and is revoked when the permit is revoked.”

Section 12VAC5-590-540 A 3 c requires a Tier 3 public notification for, “Operation under a variance or an exemption to a [Primary Maximum Contaminant Level] or treatment technique requirement[.]”

(Field staff may want to insert a narrative to further describe this violation situation that resulted in this NOAV, to include specifics such as observations, concentration levels, dates, times, etc. where appropriate).

### **Required Actions**

In accordance with Section 12VAC5-590-540 of the Regulations, you are required to issue a Tier 3 public notice (“Notice”) to the consumers in the area served by the waterworks in accordance with the public notification requirements described below:

**Public Notice:** The Notice requires you to notify consumers in the area served **within 12 months** of learning of the violation. This Notice must be handled as follows:

- You must distribute the Notice no later than *(date)*.
- The Notice must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example), you must also use other delivery methods to provide the Notice to these consumers as well. Examples of other methods include, but are not limited to, publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the waterworks.
- You may choose to include the Notice as an enclosure with or as an integral part of your Consumer Confidence Report (CCR) for *(year)* water quality data. To do so, the combined CCR and public Notice must be distributed to consumers by July 1, *(year)*, AND you must take steps to ensure that the CCR and public Notice reach all persons served by the waterworks. This requirement is more stringent than the “good faith effort” requirements for distributing the CCR alone.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved.)*
- You must repeat distribution of the Notice annually for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved.)*

**Draft Notice:** Attached is a draft Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil

charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27 and 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at (phone number) or email at (email address).

Sincerely,

Name & Title  
Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 3 Public Notice
2. Certification Form

cc: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director. Administrator/Manager, name of County, County

**NOTICE TO CONSUMERS  
of the Name WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Failure to Disclose Terms and Conditions under a Variance**

Our water system recently violated a drinking water regulation. Although this situation does not require that you take immediate action, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation. During the *(compliance period)*, our waterworks failed to disclose by posting the terms and conditions of a variance granted by the department. *[Field staff may want to further describe the violation, to include additional specifics, such as other observations to summarize situational correctness].*

**What should I do?**

There is nothing you need to do at this time. You may continue to drink the water. If a situation arises where the water is no longer safe to drink, you will be notified within 24 hours.

**What is being done?**

*(Field staff to describe the corrective action(s) required by the waterworks owner and when the violation is expected to be resolved.)*

For more information, please contact *(name of contact)* at *(phone number)* or *(mailing address)*.

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by *(system)*. State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Failure to Disclose Terms and Conditions under a Variance - (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
*(Community Waterworks)*

By direct (hand) delivery on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_

Provided to the following broadcast media (list: television/radio/website/social media) on

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ (method and date)

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address

**FM-C14-T3-Attachment 54.** Failure to Deliver the CCR by July 1.

**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 3 NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

### NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Failure to Deliver the CCR by July 1.

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Sections 12VAC5-590-545 A 1 and 12VAC5-590-545 B of the Virginia *Waterworks Regulations* (“Regulations”) for failing to deliver the consumer confidence report (CCR) by the July 1, (calendar year) deadline for the (reporting year) as required by the CCR Rule. The Regulations characterize this alleged violation as a Tier 3 reporting violation.

Section 12VAC5-590-545 A 1 states, “The owner of a community waterworks shall deliver to the owner's customers an annual report that contains information on the quality of the water delivered by the waterworks and characterizes the risks, if any, from exposure to contaminants detected in the drinking water.”

Section 12VAC5-590-545 B 1 states, in part, “The owner of an existing community waterworks shall deliver the report by July 1 annually.”

(Field staff may want to insert a narrative to further describe this violation situation that resulted in this NOAV. Narrative to include observations, sampling results, dates, times, etc. where appropriate, e.g., choose from the options below).

### **Required Actions**

In accordance with Section 12VAC5-590-540 of the Regulations, you are required to issue a Tier 3 public notice (“Notice”) to the consumers in the area served by the waterworks in accordance with



the public notification requirements described below:

**Public Notice:** The Notice requires you to notify consumers in the area served **within 12 months** of learning of the violation. This Notice must be handled as follows:

- You must distribute the Notice no later than *(date)*.
- The Notice must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example), you must also use other delivery methods to provide the Notice to these consumers as well. Examples of other methods include, but are not limited to, publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the waterworks.
- You may choose to include the Notice as an enclosure with or as an integral part of your Consumer Confidence Report (CCR) for *(year)* water quality data. To do so, the combined CCR and public Notice must be distributed to consumers by July 1, *(year)*, AND you must take steps to ensure that the CCR and public Notice reach all persons served by the waterworks. This requirement is more stringent than the “good faith effort” requirements for distributing the CCR alone.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved.)*
- You must repeat distribution of the Notice annually for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved.)*

**Draft Notice:** Attached is a draft Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action; e.g., Waterworks to deliver the (reporting year) CCR to all billing customers and make a good faith attempt to deliver the CCR to non-billing customers. In addition, provide this office with a copy of the CCR delivered and a completed and signed CCR Certification within 30 days of the date of this letter).*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at (phone number) or email at (email address).

Sincerely,

Name & Title  
Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 3 Public Notice
2. Certification Form

cc: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director. Administrator/Manager, name of County, County

**NOTICE TO CONSUMERS  
of the Name WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Failure to Deliver the Consumer Confidence Report (CCR) by July 1**

Our water system recently failed to comply with the requirement to deliver the consumer confidence report (CCR) by the July 1 deadline. Although this situation does not require that you take immediate action, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation.

During *(monitoring period)*, we failed to deliver the CCR by the deadline. *(Field staff may want to further describe the violation, to include specifics such as observations, concentration levels, dates, times, etc. to summarize situational correctness).*

**What should I do?**

There is nothing you need to do at this time. You may continue to drink the water. If a situation arises where the water is no longer safe to drink, you will be notified within 24 hours.

**What is being done?**

*(Field staff to describe the corrective action(s) required by the waterworks owner and when the violation is expected to be resolved.)*

For more information, please contact *(name of contact)* at *(phone number)* or *(mailing address)*.

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by *(system)*. State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Failure to Deliver the Consumer Confidence Report (CCR) by July 1-  
(tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
*(Community Waterworks)*

By direct (hand) delivery on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_

Provided to the following broadcast media *(list: television/radio/website/social media)* on

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ *(method and date)*

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
*Name* Field Office, Office of Drinking Water  
*Address*

**FM-C14-T3-Attachment 55.** Failure to Conduct the Pb and Cu Initial Tap Sampling under LCR. **INSTRUCTIONS:** Field staff to use this template to finalize the Tier 3 NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

### NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Failure to Conduct the Pb and Cu Initial Tap Sampling under Lead and Copper Rule (LCR)

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-375 A of the Virginia *Waterworks Regulations* (“Regulations”) for failing to conduct the initial tap monitoring for lead and copper under the Lead and Copper Rule (LCR). The Regulations characterize this alleged violation as a Tier 3 violation.

Section 12VAC5-590-375 A states, in part, “The owner of a community waterworks or a [nontransient noncommunity waterworks] shall monitor for lead and copper in tap water..., water quality (corrosion) parameters in the distribution system and at entry points..., and lead and copper in water supplies...”

Section 12VAC5-590-375 B 4 a states, “Initial tap sampling. The first six-month monitoring period for small (serving less than 3,300 population), medium (serving 3,301 to 50,000 population), and large waterworks (serving greater than 50,000 population) shall be established by the [Virginia Department of Health].”

(Field staff to explain that the waterworks was required to complete initial tap sampling during the period January-June or July-September (year) and this sampling was not completed).

(Field staff may want to insert a narrative to further describe this violation situation that resulted in this NOAV, to include specifics such as observations, concentration levels, dates, times, etc. where appropriate).

## **Required Actions**

In accordance with Section 12VAC5-590-540 of the Regulations, you are required to issue a Tier 3 public notice (“Notice”) to the consumers in the area served by the waterworks in accordance with the public notification requirements described below:

**Public Notice:** The Notice requires you to notify consumers in the area served **within 12 months** of learning of the violation. This Notice must be handled as follows:

- You must distribute the Notice no later than *(date)*.
- The Notice must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example), you must also use other delivery methods to provide the Notice to these consumers as well. Examples of other methods include, but are not limited to, publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the waterworks.
- You may choose to include the Notice as an enclosure with or as an integral part of your Consumer Confidence Report (CCR) for *(year)* water quality data. To do so, the combined CCR and public Notice must be distributed to consumers by July 1, *(year)*, AND you must take steps to ensure that the CCR and public Notice reach all persons served by the waterworks. This requirement is more stringent than the “good faith effort” requirements for distributing the CCR alone.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved.)*
- You must repeat distribution of the Notice annually for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved.)*

**Draft Notice:** Attached is a draft Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at (phone number) or email at (email address).

Sincerely,

Name & Title  
Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 3 Public Notice
2. Certification Form

ec: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director. Administrator/Manager, name of County, County

**NOTICE TO CONSUMERS  
of the Name WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Failure to Conduct the Pb and Cu Initial Tap Sampling under LCR**

Our water system recently failed to comply with the requirement to conduct the initial tap sampling for lead and copper under the Lead and Copper Rule (LCR). Although this situation does not require that you take immediate action, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation.

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During *(compliance period)*, we did not collect any of the required samples, and therefore we cannot be sure of the quality of your drinking water during that time. *(Field staff may want to include additional clarifying details).*

**What should I do?**

There is nothing you need to do at this time. You may continue to drink the water. If a situation arises where the water is no longer safe to drink, you will be notified within 24 hours.

**What is being done?**

*(Field staff to describe the corrective action(s) required by the waterworks owner and when the violation is expected to be resolved.)*

For more information, please contact *(name of contact)* at *(phone number)* or *(mailing address)*.

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by *(system)*. State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.



SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Failure to Conduct the Pb and Cu Initial Tap Sampling under LCR - (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
*(Community/NTNC Waterworks)*

By direct (hand) delivery on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_

Provided to the following broadcast media *(list: television/radio/website/social media)* on

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ *(method and date)*

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address

**FM-C14-T3-Attachment 56.** Failure to Conduct Follow-Up Monitoring and/or Reporting After Installation of Source Water Treatment under the LCR.

**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 3 NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined, and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

### NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Failure to Conduct Follow-Up Monitoring and/or Reporting After Installation of Source Water Treatment under LCR

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-375 B 4 b (3) of the Virginia *Waterworks Regulations* (“Regulations”), for failing to conduct follow-up monitoring/reporting after installation of source water treatment. The Regulations characterize this alleged violation as a Tier 3 violation.

Section 12VAC5-590-375 B 4 b (3) states, “The owner of a waterworks that installs source water treatment pursuant to 12VAC5-590-405 B 1 c shall monitor during two consecutive six-month monitoring periods by the date specified in 12VAC5-590-405 B 1 d.”

(Field staff may want to insert a narrative to further describe this violation situation in this NOAV. Narrative to include observations, sampling results, dates, times, etc. where appropriate.)

#### **Required Actions**

In accordance with Section 12VAC5-590-540 of the Regulations, you are required to issue a Tier 3 public notice (“Notice”) to the consumers in the area served by the waterworks in accordance with the public notification requirements described below:

**Public Notice:** The Notice requires you to notify consumers in the area served **within 12 months** of learning of the violation. This Notice must be handled as follows:

- You must distribute the Notice no later than *(date)*.
- The Notice must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example), you must also use other delivery methods to provide the Notice to these consumers as well. Examples of other methods include, but are not limited to, publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the waterworks.
- You may choose to include the Notice as an enclosure with or as an integral part of your Consumer Confidence Report (CCR) for *(year)* water quality data. To do so, the combined CCR and public Notice must be distributed to consumers by July 1, *(year)*, AND you must take steps to ensure that the CCR and public Notice reach all persons served by the waterworks. This requirement is more stringent than the “good faith effort” requirements for distributing the CCR alone.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved.)*
- You must repeat distribution of the Notice annually for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved.)*

**Draft Notice:** Attached is a draft Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at (phone number) or email at (email address).

Sincerely,

Name & Title

Field office name

ABC.xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 3 Public Notice
2. Certification Form

cc: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director. Administrator/Manager, name of County, County

**NOTICE TO CONSUMERS  
of the Name WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Failure to Conduct Follow-Up Monitoring and/or Reporting After Installation of Source  
Water Treatment under LCR**

Our water system recently failed to conduct follow-up monitoring/reporting after installation of source water treatment. Although this situation does not require that you take immediate action, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation.

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During *(compliance period)*, we failed to conduct the follow-up monitoring and/or reporting, and therefore we cannot be sure of the quality of our drinking water during that time. *(Field staff may want to further describe the violation, to include specifics such as observations, concentration levels, dates, times, etc. to summarize situational correctness).*

**What should I do?**

There is nothing you need to do at this time. You may continue to drink the water. If a situation arises where the water is no longer safe to drink, you will be notified within 24 hours.

**What is being done?**

*(Field staff to describe the corrective action(s) required by the waterworks owner and when the violation is expected to be resolved.)*

For more information, please contact *(name of contact)* at *(phone number)* or *(mailing address)*.

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by *(system)*. State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Failure to Conduct Follow-Up Monitoring and/or Reporting After Installation of Source Water Treatment under LCR - (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
*(Community Waterworks)*

By direct (hand) delivery on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_

Provided to the following broadcast media *(list: television/radio/website/social media)* on

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ *(method and date)*

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
*Name* Field Office, Office of Drinking Water  
*Address*

**FM-C14-T3-Attachment 57.** Failure to Conduct Follow-Up Monitoring and/or Reporting after Installation of Optimum Corrosion Control Treatment under LCR.

**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 3 NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

### NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Failure to Conduct Follow-Up Monitoring and/or Reporting after Installation of Optimum Corrosion Control Treatment under LCR

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-375 B 4 b (1) and (2) of the Virginia *Waterworks Regulations* (“Regulations”) for failure to conduct follow-up monitoring and/or reporting after installation of optimum corrosion control treatment (OCCT) under the Lead and Copper Rule (LCR). The Regulations characterize this alleged violation as a Tier 3 violation.

Section 12VAC5-590-375 B 4 b (1) and (2) states, “(1) The owner of a large waterworks that installs optimal corrosion control treatment pursuant to 12VAC5-590-405 A 2 d (4) shall monitor during two consecutive six-month monitoring periods by the date specified in 12VAC5-590-405 A 2 d (5). (2) The owner of a small or a medium waterworks that installs optimal corrosion control treatment pursuant to 12VAC5-590-405 A 2 e (5) shall monitor during two consecutive six-month monitoring periods by the date specified in 12VAC5-590-405 A 2 e (6).”

(Field staff may want to insert a narrative to further describe this violation situation in this NOAV. Narrative to include observations, sampling results, dates, times, etc. where appropriate.)

## **Required Actions**

In accordance with Section 12VAC5-590-540 of the Regulations, you are required to issue a Tier 3 public notice (“Notice”) to the consumers in the area served by the waterworks in accordance with the public notification requirements described below:

**Public Notice:** The Notice requires you to notify consumers in the area served **within 12 months** of learning of the violation. This Notice must be handled as follows:

- You must distribute the Notice no later than *(date)*.
- The Notice must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example), you must also use other delivery methods to provide the Notice to these consumers as well. Examples of other methods include, but are not limited to, publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the waterworks.
- You may choose to include the Notice as an enclosure with or as an integral part of your Consumer Confidence Report (CCR) for *(year)* water quality data. To do so, the combined CCR and public Notice must be distributed to consumers by July 1, *(year)*, AND you must take steps to ensure that the CCR and public Notice reach all persons served by the waterworks. This requirement is more stringent than the “good faith effort” requirements for distributing the CCR alone.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved.)*
- You must repeat distribution of the Notice annually for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved.)*

**Draft Notice:** Attached is a draft Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)*



**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at (phone number) or email at (email address).

Sincerely,

Name & Title  
Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 3 Public Notice
2. Certification Form

cc: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director. Administrator/Manager, name of County, County

**NOTICE TO CONSUMERS  
of the Name WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Failure to Conduct Follow-Up *Monitoring and/or Reporting* after Installation of Optimum  
Corrosion Control Treatment under LCR**

Our water system recently failed to conduct follow-up *monitoring and/or reporting* after installation of optimum corrosion control treatment. Although this situation does not require that you take immediate action, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation.

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During (*compliance period*), we failed to conduct the follow-up *monitoring and/or reporting*, and therefore we cannot be sure of the quality of our drinking water during that time. (*Field staff may want to further describe the violation, to include specifics such as observations, concentration levels, dates, times, etc. to summarize situational correctness*).

**What should I do?**

There is nothing you need to do at this time. You may continue to drink the water. If a situation arises where the water is no longer safe to drink, you will be notified within 24 hours.

**What is being done?**

(Field staff to describe the corrective action(s) required by the waterworks owner and when the violation is expected to be resolved.)

For more information, please contact (*name of contact*) at (*phone number*) or (*mailing address*).

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by (*system*). State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Failure to Conduct Follow-Up Monitoring and/or Reporting after Installation of Optimum Corrosion Control Treatment under LCR - (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
*(Community/Noncommunity Waterworks)*

By direct (hand) delivery on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_

Provided to the following broadcast media *(list: television/radio/website/social media)* on

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ *(method and date)*

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address

**FM-C14-T3-Attachment 58.** Failure to Comply with a Testing Procedure for any Contaminant.  
**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 3 NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

### NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Failure to Comply with a Testing Procedure for any Contaminant

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-440 A of the Virginia *Waterworks Regulations* (“Regulations”) for failing to comply with a testing procedure for (any contaminant, specify name of contaminant) during the (compliance period). The Regulations characterize this alleged violation as a Tier 3 violation.

Section 12VAC5-590-440 A states, “All drinking water analyses for compliance purposes shall be performed by analytical methods that are consistent with current EPA regulations found at 40 CFR Part 141 and 40 CFR Part 143. Standards for laboratories seeking certification to perform drinking water analyses are found in the Regulation for the Certification of Laboratories Analyzing Drinking Water (1VAC30-41) and regulations for the Accreditation for Commercial Environmental Laboratories (1VAC30-46) promulgated by the Department of General Services, DCLS.”

(Field staff may want to insert a narrative to further describe this violation situation that resulted in this NOAV, to include specifics such as observations, concentration levels, dates, times, etc. where appropriate).

### **Required Actions**

In accordance with Section 12VAC5-590-540 of the Regulations, you are required to issue a Tier 3 public notice (“Notice”) to the consumers in the area served by the waterworks in accordance with the public notification requirements described below:

**Public Notice:** The Notice requires you to notify consumers in the area served **within 12 months** of learning of the violation. This Notice must be handled as follows:

- You must distribute the Notice no later than *(date)*.
- The Notice must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example), you must also use other delivery methods to provide the Notice to these consumers as well. Examples of other methods include, but are not limited to, publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the waterworks.
- You may choose to include the Notice as an enclosure with or as an integral part of your Consumer Confidence Report (CCR) for *(year)* water quality data. To do so, the combined CCR and public Notice must be distributed to consumers by July 1, *(year)*, AND you must take steps to ensure that the CCR and public Notice reach all persons served by the waterworks. This requirement is more stringent than the “good faith effort” requirements for distributing the CCR alone.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved.)*
- You must repeat distribution of the Notice annually for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved.)*

**Draft Notice:** Attached is a draft Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at (phone number) or email at (email address).

Sincerely,

Name & Title  
Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 3 Public Notice
2. Certification Form

ec: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director.  
Administrator/Manager, name of County, County

**NOTICE TO CONSUMERS  
of the Name WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Failure to Comply with a Testing Procedure for any Contaminant**

Our water system recently failed to comply with a required testing procedure. Although this situation does not require that you take immediate action, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation.

*\*We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During [compliance period], we did not complete all monitoring or testing for [contaminant(s)], and therefore cannot be sure of the quality of your drinking water during that time.\**

Any sample we collect must be sent to and analyzed by a certified laboratory within a specified amount of time. We collected the sample on [give date], but did not get our sample to the laboratory within the allowed holding time. [Field staff may want to further describe the violation, to include additional specifics, such as other observations to summarize situational correctness].

(Depending on the specific contaminant(s), staff may consider adding the mandatory health effects language from Section 12VAC5-590-546).

**What should I do?**

There is nothing you need to do at this time. You may continue to drink the water. If a situation arises where the water is no longer safe to drink, you will be notified within 24 hours.

**What is being done?**

(Field staff to describe the corrective action(s) required by the waterworks owner and when the violation is expected to be resolved.) For example, on [give date], we [collected/will collect] a new sample of our finished water in order to have it analyzed for [specify contaminant]. We [sent/will send] the sample to the certified lab via courier to ensure that the sample [arrived/arrives] within the allowed holding time. The sample was analyzed and [specify contaminant] was not found at detectable levels.

For more information, please contact (name of contact) at (phone number) or (mailing address).

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by (system). State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.



SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Failure to Comply with a Testing Procedure for any Contaminant - (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
(Community/Noncommunity Waterworks)

By direct (hand) delivery on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_

Provided to the following broadcast media (list: television/radio/website/social media) on

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ (method and date)

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address

**FM-C14-T3-Attachment 59.** Major Failure to Collect Any Source Water Monitoring Samples under LT2 Rule.

**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 3 NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined, and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

### NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Major Failure to Collect Any Source Water Monitoring Samples under LT2 Rule

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-401 B (*1 or 2*) of the Virginia *Waterworks Regulations* (“Regulations”) for failing to collect any of the (*initial round/second round*) source water monitoring samples for the determination of whether additional treatment is required under the LT2 Rule. The Regulations characterize this alleged violation as a Tier 3 violation.

Section 12VAC5-590-401 B states, in part, “The owner shall conduct an initial and a second round of source water monitoring for each water treatment plant that treats a surface water source, a [groundwater under the direct influence of surface water] source, or both. This monitoring may include sampling for Cryptosporidium, E. coli, and turbidity to determine what level, if any, of additional Cryptosporidium treatment is required.”

(Field staff select B 1 or B 2 as applicable in the opening paragraph and retain the applicable paragraph below.)

Section 12VAC5-590-401 B 1 states, in part, “Initial round of source water monitoring. The owner shall conduct the...monitoring on the schedule in subdivision B 3 of this section unless the monitoring avoidance criteria in subdivision B 4 are met.”

Section 12VAC5-590-401 B 2 states, in part, “Second round of source water monitoring. The owner shall conduct a second round of source water monitoring that meets the requirements for monitoring

parameters, frequency, and duration described in subdivision B 1 of this section, unless the monitoring exemption criteria...are met.”

(Field staff to insert citations here for the subparagraphs under B 1 or B 2 that was violated and update the first paragraph to describe the exact monitoring requirements that were allegedly violated.)

(Field staff may want to insert a narrative to further describe this violation situation that resulted in this NOAV. Narrative to include observations, sampling results, dates, times, etc. where appropriate.)

### **Required Actions**

In accordance with Section 12VAC5-590-540 of the Regulations, you are required to issue a Tier 3 public notice (“Notice”) to the consumers in the area served by the waterworks in accordance with the public notification requirements described below:

**Public Notice:** The Notice requires you to notify consumers in the area served **within 12 months** of learning of the violation. This Notice must be handled as follows:

- You must distribute the Notice no later than *(date)*.
- The Notice must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example), you must also use other delivery methods to provide the Notice to these consumers as well. Examples of other methods include, but are not limited to, publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the waterworks.
- You may choose to include the Notice as an enclosure with or as an integral part of your Consumer Confidence Report (CCR) for *(year)* water quality data. To do so, the combined CCR and public Notice must be distributed to consumers by July 1, *(year)*, AND you must take steps to ensure that the CCR and public Notice reach all persons served by the waterworks. This requirement is more stringent than the “good faith effort” requirements for distributing the CCR alone.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved.)*
- You must repeat distribution of the Notice annually for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved.)*

**Draft Notice:** Attached is a draft Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at *(phone number)* or email at *(email address)*.

Sincerely,

*Name & Title*  
*Field office name*

*ABC:xyz*

*Enclosures: (If applicable, insert any other relevant information)*

1. Draft Tier 3 Public Notice
2. Certification Form

*cc: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director. Administrator/Manager, name of County, County*

**NOTICE TO CONSUMERS  
of the Name WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Major Failure to Collect Any Source Water Monitoring Samples under LT2 Rule**

Our water system recently failed to collect any of the *(initial round/second round)* source water monitoring samples for the determination of whether additional treatment is required. Although this situation does not require that you take immediate action, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation.

During *(compliance period)*, we failed to collect any of the required samples, and therefore we cannot be sure of the quality of your drinking water during that time. *(Field staff may want to further describe the violation, to include specifics such as observations, concentration levels, dates, times, etc. to summarize situational correctness).*

**What should I do?**

There is nothing you need to do at this time. You may continue to drink the water. If a situation arises where the water is no longer safe to drink, you will be notified within 24 hours.

**What is being done?**

*(Field staff to describe the corrective action(s) required by the waterworks owner and when the violation is expected to be resolved.)*

For more information, please contact *(name of contact)* at *(phone number)* or *(mailing address)*.

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by *(system)*. State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Major Failure to Collect Any Source Water Monitoring Samples under LT2 Rule  
- (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
*(Community Waterworks)*

By direct (hand) delivery on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_  
\_\_\_\_\_

Provided to the following broadcast media (list: television/radio/website/social media) on

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ (method and date)

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address

**FM-C14-T3-Attachment 60.** Minor Failure to Collect All Source Water Monitoring Samples under LT2 Rule.

**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 3 NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

### NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Minor Failure to Collect All Source Water Monitoring Samples under LT2 Rule

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-401 B (*1 or 2*) of the Virginia *Waterworks Regulations* (“Regulations”) for failing to collect all of the (*initial round/second round*) source water monitoring samples for the determination of whether additional treatment is required under the LT2 Rule. The Regulations characterize this alleged violation as a Tier 3 violation.

Section 12VAC5-590-401 B states, in part, “The owner shall conduct an initial and a second round of source water monitoring for each water treatment plant that treats a surface water source, a [groundwater under the direct influence of surface water] source, or both. This monitoring may include sampling for Cryptosporidium, E. coli, and turbidity to determine what level, if any, of additional Cryptosporidium treatment is required.”

(Field staff select B 1 or B 2 as applicable in the opening paragraph and retain the applicable paragraph below.)

Section 12VAC5-590-401 B 1 states, in part, “Initial round of source water monitoring. The owner shall conduct the...monitoring on the schedule in subdivision B 3 of this section unless the monitoring avoidance criteria in subdivision B 4 are met.”

Section 12VAC5-590-401 B 2 states, “Second round of source water monitoring. The owner shall conduct a second round of source water monitoring that meets the requirements for monitoring

parameters, frequency, and duration described in subdivision B 1 of this section, unless the monitoring exemption criteria...are met.”

*(Field staff may want to insert a narrative to further describe this violation situation that resulted in this NOAV. Narrative to include observations, sampling results, dates, times, etc. where appropriate.)*

*(Field staff may want to insert a narrative to further describe this violation situation in this NOAV. Narrative to include observations, sampling results, dates, times, etc. where appropriate.)*

## **Required Actions**

In accordance with Section 12VAC5-590-540 of the Regulations, you are required to issue a Tier 3 public notice (“Notice”) to the consumers in the area served by the waterworks in accordance with the public notification requirements described below:

**Public Notice:** The Notice requires you to notify consumers in the area served **within 12 months** of learning of the violation. This Notice must be handled as follows:

- You must distribute the Notice no later than *(date)*.
- The Notice must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example), you must also use other delivery methods to provide the Notice to these consumers as well. Examples of other methods include, but are not limited to, publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the waterworks.
- You may choose to include the Notice as an enclosure with or as an integral part of your Consumer Confidence Report (CCR) for *(year)* water quality data. To do so, the combined CCR and public Notice must be distributed to consumers by July 1, *(year)*, AND you must take steps to ensure that the CCR and public Notice reach all persons served by the waterworks. This requirement is more stringent than the “good faith effort” requirements for distributing the CCR alone.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved.)*
- You must repeat distribution of the Notice annually for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved.)*

**Draft Notice:** Attached is a draft Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.



**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at *(phone number)* or email at *(email address)*.

Sincerely,

*Name & Title*  
*Field office name*

*ABC:xyz*

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 3 Public Notice
2. Certification Form

*cc: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director. Administrator/Manager, name of County, County*

**NOTICE TO CONSUMERS  
of the Name WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Minor Failure to Collect All Source Water Monitoring Samples under LT2 Rule**

Our water system recently failed to collect all of the *(initial round/second round)* source water monitoring samples for the determination of whether additional treatment is required. Although this situation does not require that you take immediate action, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation.

During *(compliance period)*, we failed to collect all of the required samples, and therefore we cannot be sure of the quality of your drinking water during that time. *(Field staff may want to further describe the violation, to include specifics such as observations, concentration levels, dates, times, etc. to summarize situational correctness).*

**What should I do?**

There is nothing you need to do at this time. You may continue to drink the water. If a situation arises where the water is no longer safe to drink, you will be notified within 24 hours.

**What is being done?**

*(Field staff to describe the corrective action(s) required by the waterworks owner and when the violation is expected to be resolved.)*

For more information, please contact *(name of contact)* at *(phone number)* or *(mailing address)*.

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by *(system)*. State Water System ID#: \_\_\_\_\_.  
Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Minor Failure to Collect All Source Water Monitoring Samples under LT2 Rule - (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
*(Community Waterworks)*

By direct (hand) delivery on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_

Provided to the following broadcast media *(list: television/radio/website/social media)* on

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ *(method and date)*

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
*Name* Field Office, Office of Drinking Water  
*Address*

**FM-C14-T3-Attachment 61.** Failure to Arrange a Comprehensive Performance Evaluation (CPE). **INSTRUCTIONS:** Field staff to use this template to finalize the Tier 3 NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

## NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Failure to Arrange a Comprehensive Performance Evaluation (CPE)

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-531 A 3 d of the Virginia *Waterworks Regulations* (“Regulations”) for failing to arrange a comprehensive performance evaluation (CPE) following abnormal filter performance. The Regulations characterize this alleged violation as a Tier 3 violation.

Section 12VAC5-590-531 A 3 d states, in part, “For an individual filter that has a measured turbidity level of greater than 2.0 [nephelometric turbidity units] in two consecutive measurements collected 15 minutes apart at any time in each of two consecutive months, the owner shall report the filter number, the turbidity measurement, and the dates on which the exceedances occurred. In addition, the owner shall arrange for the conduct of a comprehensive performance evaluation (CPE) by the [Virginia Department of Health] or a third party approved by the [Virginia Department of Health] no later than 30 days following the exceedance and have the evaluation completed and submitted to the [Virginia Department of Health] no later than 90 days following the exceedance.”

(Field staff may want to insert a narrative to further describe this violation situation that resulted in this NOAV. Narrative to include observations, sampling results, dates, times, etc. where appropriate.)

### **Required Actions**

In accordance with Section 12VAC5-590-540 of the Regulations, you are required to issue a Tier 3 public notice (“Notice”) to the consumers in the area served by the waterworks in accordance with

the public notification requirements described below:

**Public Notice:** The Notice requires you to notify consumers in the area served **within 12 months** of learning of the violation. This Notice must be handled as follows:

- You must distribute the Notice no later than *(date)*.
- The Notice must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example), you must also use other delivery methods to provide the Notice to these consumers as well. Examples of other methods include, but are not limited to, publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the waterworks.
- You may choose to include the Notice as an enclosure with or as an integral part of your Consumer Confidence Report (CCR) for *(year)* water quality data. To do so, the combined CCR and public Notice must be distributed to consumers by July 1, *(year)*, AND you must take steps to ensure that the CCR and public Notice reach all persons served by the waterworks. This requirement is more stringent than the “good faith effort” requirements for distributing the CCR alone.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved.)*
- You must repeat distribution of the Notice annually for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved.)*

**Draft Notice:** Attached is a draft Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil

charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at (phone number) or email at (email address).

Sincerely,

Name & Title

Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 3 Public Notice
2. Certification Form

cc: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director. Administrator/Manager, name of County, County

**NOTICE TO CONSUMERS  
of the Name WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Failure to Arrange a Comprehensive Performance Evaluation (CPE)**

Our water system recently failed to comply with the requirement to arrange a comprehensive performance evaluation (CPE) following abnormal filter performance. Although this situation does not require that you take immediate action, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation.

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During *(compliance period)*, we failed to arrange the comprehensive performance evaluation (CPE), and therefore we cannot be sure of the quality of your drinking water during that time. *(Field staff may want to further describe the violation, to include specifics such as observations, concentration levels, dates, times, etc. to summarize situational correctness).*

**What should I do?**

There is nothing you need to do at this time. You may continue to drink the water. If a situation arises where the water is no longer safe to drink, you will be notified within 24 hours.

**What is being done?**

*(Field staff to describe the corrective action(s) required by the waterworks owner and when the violation is expected to be resolved.)*

For more information, please contact *(name of contact)* at *(phone number)* or *(mailing address)*.

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by *(system)*. State Water System ID#: \_\_\_\_\_.  
Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Failure to Arrange a Comprehensive Performance Evaluation (CPE) - (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
*(Community Waterworks)*

By direct (hand) delivery on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_

Provided to the following broadcast media (list: television/radio/website/social media) on

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ (method and date)

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address



**FM-C14-T3-Attachment 62.** Failure of the CCR to Meet Adequacy, Availability, and Content Requirements.

**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 3 NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

### NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Failure of the Consumer Confidence Report (CCR) to Meet Adequacy, Availability, and Content Requirements

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-545 A 1 of the Virginia *Waterworks Regulations* (“Regulations”) for failure of the consumer confidence report (CCR) to meet general acceptance by the Virginia Department of Health due to inadequate content and being unavailable to some consumers. The Regulations characterize this alleged violation as a Tier 3 violation.

Section 12VAC5-590-545 A 1 states, “The owner of a community waterworks shall deliver to the owner's customers an annual report that contains information on the quality of the water delivered by the waterworks and characterizes the risks, if any, from exposure to contaminants detected in the drinking water.”

(Field staff may want to insert a narrative to further describe this violation situation in this NOAV. Narrative to include observations, sampling results, dates, times, etc. where appropriate.)

#### **Required Actions**

In accordance with Section 12VAC5-590-540 of the Regulations, you are required to issue a Tier 3 public notice (“Notice”) to the consumers in the area served by the waterworks in accordance with the public notification requirements described below:

**Public Notice:** The Notice requires you to notify consumers in the area served **within 12 months** of learning of the violation. This Notice must be handled as follows:

- You must distribute the Notice no later than *(date)*.
- The Notice must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example), you must also use other delivery methods to provide the Notice to these consumers as well. Examples of other methods include, but are not limited to, publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the waterworks.
- You may choose to include the Notice as an enclosure with or as an integral part of your Consumer Confidence Report (CCR) for *(year)* water quality data. To do so, the combined CCR and public Notice must be distributed to consumers by July 1, *(year)*, AND you must take steps to ensure that the CCR and public Notice reach all persons served by the waterworks. This requirement is more stringent than the “good faith effort” requirements for distributing the CCR alone.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved.)*
- You must repeat distribution of the Notice annually for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved.)*

**Draft Notice:** Attached is a draft Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at (phone number) or email at (email address).

Sincerely,

Name & Title  
Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 3 Public Notice
2. Certification Form

ec: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director. Administrator/Manager, name of County, County

**NOTICE TO CONSUMERS  
of the Name WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Failure of the CCR to Meet Adequacy, Availability, and Content Requirements**

Our water system recently failed to provide a consumer confidence report (CCR) meeting general acceptance by the department due to inadequate content and being unavailable to some consumers. Although this situation does not require that you take immediate action, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation.

During *(compliance period)*, we failed to provide the CCR meeting general acceptance by the department. *(Field staff may want to further describe the violation, to include specifics such as observations, concentration levels, dates, times, etc. to summarize situational correctness).*

**What should I do?**

There is nothing you need to do at this time. You may continue to drink the water. If a situation arises where the water is no longer safe to drink, you will be notified within 24 hours.

**What is being done?**

*(Field staff to describe the corrective action(s) required by the waterworks owner and when the violation is expected to be resolved.)*

For more information, please contact *(name of contact)* at *(phone number)* or *(mailing address)*.

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by *(system)*. State Water System ID#: \_\_\_\_\_.  
Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Failure of the CCR to Meet Adequacy, Availability, and Content Requirements - (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
*(Community Waterworks)*

By direct (hand) delivery on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_  
\_\_\_\_\_

Provided to the following broadcast media (list: television/radio/website/social media) on

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ (method and date)

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address

**FM-C14-T3-Attachment 63.** Failure to Provide Notice on the Availability of Unregulated Contaminant Monitoring Results.

**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 3 NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

### NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Failure to Provide Notice on the Availability of Unregulated Contaminant Monitoring Results

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-540 F of the Virginia *Waterworks Regulations* (“Regulations”) for failing to provide notice on the availability of unregulated contaminant monitoring sample results following the (monitoring period). The Regulations characterize this alleged violation as a Tier 3 violation.

Section 12VAC5-590-540 F states, in part, “Special notice of the availability of [unregulated contaminant] monitoring results. 1. The owner of a community waterworks or a [nontransient noncommunity waterworks] shall notify persons served by the waterworks of the availability of the results of the sampling no later than 12 months after the monitoring results are known.”

(Field staff may want to insert a narrative to further describe this violation situation that resulted in this NOAV, to include specifics such as observations, concentration levels, dates, times, etc. where appropriate).

#### **Required Actions**

In accordance with Section 12VAC5-590-540 of the Regulations, you are required to issue a Tier 3 public notice (“Notice”) to the consumers in the area served by the waterworks in accordance with the public notification requirements described below:

**Public Notice:** The Notice requires you to notify consumers in the area served **within 12 months** of learning of the violation. This Notice must be handled as follows:

- You must distribute the Notice no later than *(date)*.
- The Notice must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example), you must also use other delivery methods to provide the Notice to these consumers as well. Examples of other methods include, but are not limited to, publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the waterworks.
- You may choose to include the Notice as an enclosure with or as an integral part of your Consumer Confidence Report (CCR) for *(year)* water quality data. To do so, the combined CCR and public Notice must be distributed to consumers by July 1, *(year)*, AND you must take steps to ensure that the CCR and public Notice reach all persons served by the waterworks. This requirement is more stringent than the “good faith effort” requirements for distributing the CCR alone.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved.)*
- You must repeat distribution of the Notice annually for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved.)*

**Draft Notice:** Attached is a draft Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at (phone number) or email at (email address).

Sincerely,

Name & Title  
Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 3 Public Notice
2. Certification Form

ec: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director. Administrator/Manager, name of County, County



**NOTICE TO CONSUMERS  
of the Name WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Failure to Provide Notice on the Availability of Unregulated Contaminant Monitoring  
Results**

Our water system has sampled for a series of unregulated contaminants. Unregulated contaminants are those that don't yet have a drinking water standard set by the EPA. The purpose of monitoring for these contaminants is to help EPA decide whether the contaminants should have a standard. As our customers, you have a right to know that these data are available.

*[Field staff may want to further describe the violation, to include additional specifics, such as other observations to summarize situational correctness].*

**What should I do?**

There is nothing you need to do at this time. You may continue to drink the water. If a situation arises where the water is no longer safe to drink, you will be notified within 24 hours.

**What is being done?**

*[Field staff to describe the corrective action(s) required by the waterworks owner and when the violation is expected to be resolved.]*

If you are interested in examining the results, please contact *(name of contact)* at *(phone number)* or *(mailing address)*.

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by *(system)*. State Water System ID#: \_\_\_\_\_.  
Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Failure to Provide Notice on the Availability of Unregulated Contaminant Monitoring Results - (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
*(Community/Noncommunity Waterworks)*

By direct (hand) delivery on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_

Provided to the following broadcast media (list: television/radio/website/social media) on

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ (method and date)

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address

**M-C14-T3-Attachment 64.** Failure to Develop a Disinfection Profile and/or Calculate a Disinfection Benchmark.

**INSTRUCTIONS:** Field staff to use this template to finalize the Tier 3 needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in italics and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

### NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Failure to Develop a Disinfection Profile and/or Calculate a Disinfection Benchmark

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-401 C 1 a of the Virginia *Waterworks Regulations* (“Regulations”) for failing to notify the Virginia Department of Health of a significant change to the disinfection practice and failing to develop disinfection profiles and calculated disinfection benchmarks. The Regulations characterize this alleged violation as a Tier 3 violation.

Section 12VAC5-590-401 C states, in part, “The owner of a waterworks that plans to make a significant change to the disinfection practice shall develop disinfection profiles and calculate disinfection benchmarks.... 1. The owner shall notify the [Virginia Department of Health] before changing the disinfection practice and shall include in this notice...a. A completed disinfection profile and disinfection benchmark for Giardia lamblia and viruses.”

(Field staff may want to insert a narrative to further describe this violation situation in this NOAV. Narrative to include observations, sampling results, dates, times, etc. where appropriate.)

#### **Required Actions**

In accordance with Section 12VAC5-590-540 of the Regulations, you are required to issue a Tier 3 public notice (“Notice”) to the consumers in the area served by the waterworks in accordance with the public notification requirements described below:

**Public Notice:** The Notice requires you to notify consumers in the area served within 12 months of learning of the violation. This Notice must be handled as follows:

- You must distribute the Notice no later than *(date)*.
- The Notice must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example), you must also use other delivery methods to provide the Notice to these consumers as well. Examples of other methods include, but are not limited to, publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the waterworks.
- You may choose to include the Notice as an enclosure with or as an integral part of your Consumer Confidence Report (CCR) for *(year)* water quality data. To do so, the combined CCR and public Notice must be distributed to consumers by July 1, *(year)*, AND you must take steps to ensure that the CCR and public Notice reach all persons served by the waterworks. This requirement is more stringent than the “good faith effort” requirements for distributing the CCR alone.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved.)*
- You must repeat distribution of the Notice annually for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved.)*

**Draft Notice:** Attached is a draft Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at (phone number) or email at (email address).

Sincerely,

Name & Title  
Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 3 Public Notice
2. Certification Form

ec: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director. Administrator/Manager, name of County, County

**NOTICE TO CONSUMERS  
of the *(Name)* WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Failure to Develop a Disinfection Profile and/or Calculate a Disinfection Benchmark**

We violated a drinking water requirement. Although this situation does not require that you take immediate action, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation.

*[Choose the appropriate option]*

*[Option 1]*

Before making any change to our disinfection practices, we are required to develop a year-long profile of our disinfection system to determine our inactivation levels for certain pathogenic organisms. Development of a profile requires monitoring disinfection parameters. We did not meet this requirement.

**and/or**

*[Option 2]*

Since we *[are making/made]* a change to our disinfection practice, we *[are/were]* required to calculate a benchmark to determine our lowest monthly inactivation level over the year. We did not calculate a benchmark.

*\*We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During [compliance period] we did not complete all monitoring or testing for the profile parameters and therefore cannot be sure of the quality of our drinking water during that time.\**

*(Field staff may want to briefly describe the violation, to include specifics such as observations, concentration levels, dates, times, etc. to summarize situational correctness).*

**What should I do?**

There is nothing you need to do at this time. You may continue to drink the water. If a situation arises where the water is no longer safe to drink, you will be notified within 24 hours

**What does this mean?**

This is not an emergency. If it had been, you would have been notified within 24 hours.

**What is being done?**

(Field staff to describe the corrective actions required by the waterworks owner and when the violation is expected to be resolved.)

For more information, please contact (name of contact) at (phone number) or (mailing address).

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by (system). State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

**VIOLATION:** Failure to Develop a Disinfection Profile and/or Calculate a Disinfection Benchmark  
- (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
*(Community Waterworks)*

By direct (hand) delivery on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_  
\_\_\_\_\_

Provided to the following broadcast media *(list: television/radio/website/social media)* on

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ *(method and date)*

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
*Name* Field Office, Office of Drinking Water  
*Address*



**FM-C14-T4-Attachment 1. No Waterworks Operation Permit.**

**INSTRUCTIONS:** Field staff to use this template to finalize the State NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

**NOTICE OF ALLEGED VIOLATION**

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: No Waterworks Operation Permit

Dear Waterworks Owner:

This letter is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-190 A of the Virginia *Waterworks Regulations* (“Regulations”) due to operating a waterworks without a valid operation permit and providing drinking water to customers.

Section 12VAC5-590-190 A states, “No owner or other person may cause or allow any waterworks to be operated in the Commonwealth without a written operation permit issued by the [State Health Commissioner].”

The Virginia Department of Health classifies this alleged violation as Tier 2 in accordance with Section 12VAC5-590-540 A 4 of the Regulations, which states in part, “[t]he [Virginia Department of Health] may require public notice for violations or other situations not listed in this section. . . .” In the case of a Tier 2 violation or situation, Section 12VAC5-590-540 C 2 a of the Regulations requires the waterworks owner to “[p]rovide the public notice as soon as practical, but no later than 30 days after the owner learns of the violation, exceedance, or situation.”

(Field staff may want to insert a more detailed narrative to describe the basis of this NOAV. Narrative may include observations, sample locations, results, dates, times, etc. where appropriate.)

## **Required Actions**

In accordance with Section 12VAC5-590-540 A 4 of the Regulations, you are required to issue a Tier 2 public notice (“Notice”) to the consumers in the area served by the waterworks in accordance with the public notification requirements described below:

**Public Notice:** This Notice requires you to notify consumers in the area served **within 30 days** following receipt of this letter. This Notice must be handled as follows:

- You must distribute the Notice no later than *(date)*.
- The Notice must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example), you must also use other delivery methods to provide the Notice to these consumers as well. Examples of other methods include, but are not limited to, publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the waterworks.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved.)*
- You must repeat distribution of the Notice every three months, for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved.)*

**Draft Notice:** Attached is a draft Public Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action; e.g., field staff to consider submission of “as-built” plans & specs, stop use of “new” equipment/source, issue boil water notice, consult with Central Office on other options.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement

actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at (phone number) or email at (email address).

Sincerely,

Name & Title  
Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 2 Public Notice
2. Certification Form

cc: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director. Administrator/Manager, name of County, County

## NOTICE TO CONSUMERS

### IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

(Insert Name) Waterworks, PWSID No. (insert #)

#### No Waterworks Operation Permit

Our water system recently violated a drinking water regulation. Although this is not an emergency, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation. On (give date), we received notice that our waterworks is operating without a written operation permit. (Field staff may add additional clarifying details as needed).

#### What should I do?

- There is nothing you need to do. You do not need to boil your water or take other corrective actions. However, if you have specific health concerns, consult your doctor.
- If you have a severely compromised immune system, have an infant, are pregnant, or pregnant, or are elderly, you may be at increased risk and should seek advice from your health care providers about drinking this water.

#### What does this mean?

This is not an emergency. If it had been, you would have been notified within 24 hours.

#### What is being done?

We are taking the necessary steps to consult with the Office of Drinking Water field staff and to proceed with an application for an operation permit in order to bring our waterworks into compliance and proper permit status. We anticipate resolving the problem within (mutually agreeable time frame).

For more information, please contact (name of contact) at (phone number) or (mailing address).

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by (system). State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: No Waterworks Operation Permit - (tracking info –monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
*(Community/Noncommunity Waterworks)*

By direct (hand) delivery on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_

\_\_\_\_\_

Provided to the following broadcast media (list: television/radio/website/social media) on

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ (method and date)

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address

**FM-C14-T4-Attachment 2. No Construction Permit for Modifications.**

**INSTRUCTIONS:** Field staff to use this template to finalize the State NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

**NOTICE OF ALLEGED VIOLATION**

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: No Construction Permit for Modifications

Dear Waterworks Owner:

This letter is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-190 B of the Virginia *Waterworks Regulations* (“Regulations”) for making modifications to a waterworks without a Construction Permit.

Section 12VAC5-590-190 B states, in part, “No owner or other person shall cause or allow the construction or change in the manner of transmission, storage, purification, treatment, or distribution of water (including the extension of water pipes for the distribution of water) at any waterworks in the Commonwealth without a written construction permit...from the [State Health Commissioner].”

The Virginia Department of Health classifies this alleged violation as Tier 2 in accordance with Section 12VAC5-590-540 A 4 of the Regulations, which states in part, “[t]he [Virginia Department of Health] may require public notice for violations or other situations not listed in this section....” In the case of a Tier 2 violation or situation, Section 12VAC5-590-540 C 2 a of the Regulations requires the waterworks owner to “[p]rovide the public notice as soon as practical, but no later than 30 days after the owner learns of the violation, exceedance, or situation.”

(Field staff may want to insert a more detailed narrative to describe the basis of this NOAV. Narrative may include observations, sample locations, results, dates, times, etc. where appropriate.)

## **Required Actions**

In accordance with Section 12VAC5-590-540 A 4 of the Regulations, you are required to issue a Tier 2 public notice (“Notice”) to the consumers in the area served by the waterworks in accordance with the public notification requirements described below:

**Public Notice:** This Notice requires you to notify consumers in the area served **within 30 days** following receipt of this letter. This Notice must be handled as follows:

- You must distribute the Notice no later than *(date)*.
- The Notice must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example), you must also use other delivery methods to provide the Notice to these consumers as well. Examples of other methods include, but are not limited to, publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the waterworks.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved.)*
- You must repeat distribution of the Notice every three months, for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved.)*

**Draft Notice:** Attached is a draft Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *date*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action; e.g., field staff to consider submission of “as-builts” plans & specs, stop use of “new” equipment/source, issue boil water notice, consult with Central Office on other options.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement

actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at (phone number) or email at (email address).

Sincerely,

Name & Title  
Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 2 Public Notice
2. Certification Form

cc: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director. Administrator/Manager, name of County, County



## NOTICE TO CONSUMERS

### IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

(Insert Name) Waterworks, PWSID No. (insert #)

#### No Construction Permit for Modifications

Our water system recently violated a drinking water regulation. Although this is not an emergency, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation. On (give date), we received notice that we made unauthorized modifications to our waterworks without a written Construction Permit from the Commissioner. (Field staff may add additional clarifying details as needed).

#### **What should I do?**

- There is nothing you need to do. You do not need to boil your water or take other corrective actions. However, if you have specific health concerns, consult your doctor.
- If you have a severely compromised immune system, have an infant, are pregnant, or pregnant, or are elderly, you may be at increased risk and should seek advice from your health care providers about drinking this water.

#### **What does this mean?**

This is not an emergency. If it had been, you would have been notified within 24 hours.

#### **What is being done?**

We are taking the necessary steps to ensure that the plans and specifications for the modifications are submitted for review and approval by the Office of Drinking Water field staff in order to bring our waterworks into compliance and proper permit status. We anticipate resolving the problem within (mutually agreeable time frame).

For more information, please contact (name of contact) at (phone number) or (mailing address).

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by (system). State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: No Construction Permit for Modifications - (tracking info- monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
(Community/Noncommunity Waterworks)

By direct (hand) delivery on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_

\_\_\_\_\_

Provided to the following broadcast media (list: television/radio/website/social media) on

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ (method and date)

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address

**FM-C14-T4-Attachment 3.** Exceeding Waterworks Permitted Design Capacity.

**INSTRUCTIONS:** Field staff to use this template to finalize the State NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

**NOTICE OF ALLEGED VIOLATION**

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Exceeding Waterworks Permitted Design Capacity

Dear Waterworks Owner:

This letter is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-190 E of the Virginia *Waterworks Regulations* (“Regulations”) for exceeding the waterworks permitted design capacity as established in the Operation Permit.

Section 12VAC5-590-190 E states, “Conditions may be imposed on the issuance of any permit, and no waterworks may be constructed, modified, or operated in violation of these conditions.”

The Virginia Department of Health classifies this alleged violation as Tier 2 in accordance with Section 12VAC5-590-540 A 4 of the Regulations, which states in part, “[t]he [Virginia Department of Health] may require public notice for violations or other situations not listed in this section....” In the case of a Tier 2 violation or situation, Section 12VAC5-590-540 C 2 a of the Regulations requires the waterworks owner to “[p]rovide the public notice as soon as practical, but no later than 30 days after the owner learns of the violation, exceedance, or situation.”

(Field staff may want to insert a more detailed narrative to describe the basis of this NOAV. Narrative may include observations, sample locations, results, dates, times, etc. where appropriate.)

**Required Actions**

In accordance with Section 12VAC5-590-540 A 4 of the Regulations, you are required to issue a Tier 2 public notice (“Notice”) to the consumers in the area served by the waterworks in accordance with the public notification requirements described below:

**Public Notice:** This Notice requires you to notify consumers in the area served within 30 days following receipt of this letter. This Notice must be handled as follows:

- You must distribute the Notice no later than (date).
- The Notice must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example), you must also use other delivery methods to provide the Notice to these consumers as well. Examples of other methods include, but are not limited to, publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the waterworks.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. (This requirement may be deleted if the violation has already been resolved.)
- You must repeat distribution of the Notice every three months, for as long as the violation persists. (This requirement may be deleted if the violation has already been resolved).

**Draft Notice:** Attached is a draft Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than (date), you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** (Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action; e.g., field staff to consider submission of “as-builts” plans & specs, stop use of “new” equipment/source, issue boil water notice, consult with Central Office on other options.)

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at (phone number) or email at (email address).

Sincerely,

Name & Title

Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 2 Public Notice
2. Certification Form

cc: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director.  
Administrator/Manager, name of County, County

## NOTICE TO CONSUMERS

### IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

(Insert Name) Waterworks, PWSID No. (insert #)

#### Exceeding Waterworks Permitted Design Capacity

Our water system recently violated a drinking water regulation. Although this is not an emergency, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation. On (give date), we received notice that our waterworks has exceeded the permitted design capacity as established in the Operation Permit. (Field staff may add additional clarifying details as needed).

#### What should I do?

- There is nothing you need to do. You do not need to boil your water or take other corrective actions. However, if you have specific health concerns, consult your doctor.
- If you have a severely compromised immune system, have an infant, are pregnant, or pregnant, or are elderly, you may be at increased risk and should seek advice from your health care providers about drinking this water.

#### What does this mean?

This is not an emergency. If it had been, you would have been notified within 24 hours.

#### What is being done?

We are taking the necessary steps to consult with the Office of Drinking Water field staff and to proceed with an application to update our operation permit in order to bring our waterworks into compliance and proper permit status. We anticipate resolving the problem within (mutually agreeable time frame).

For more information, please contact (name of contact) at (phone number) or (mailing address).

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by (system). State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Exceeding Waterworks Permitted Design Capacity - (tracking info –monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
*(Community/Noncommunity Waterworks)*

By direct (hand) delivery on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_

Provided to the following broadcast media *(list: television/radio/website/social media)* on

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ *(method and date)*

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address

**FM-C14-T4-Attachment 4. Operating Facility Beyond Permit Conditions.**

**INSTRUCTIONS:** Field staff to use this template to finalize the State NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

**NOTICE OF ALLEGED VIOLATION**

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Operating Facility Beyond Permit Conditions

Dear Waterworks Owner:

This letter is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-190 E of the Virginia *Waterworks Regulations* (“Regulations”) for operating a waterworks beyond permit conditions (insert description of permit conditions, treatment facility) as established in the Operation Permit.

Section 12VAC5-590-190 E states, “Conditions may be imposed on the issuance of any permit, and no waterworks may be constructed, modified, or operated in violation of these conditions.”

The Virginia Department of Health classifies this alleged violation as Tier 2 in accordance with Section 12VAC5-590-540 A 4 of the Regulations, which states in part, “[t]he [Virginia Department of Health] may require public notice for violations or other situations not listed in this section. . . .” In the case of a Tier 2 violation or situation, Section 12VAC5-590-540 C 2 a of the Regulations requires the waterworks owner to “[p]rovide the public notice as soon as practical, but no later than 30 days after the owner learns of the violation, exceedance, or situation.”

(Field staff may want to insert a more detailed narrative to describe the basis of this NOAV. Narrative may include observations, sample locations, results, dates, times, etc. where appropriate.)

**Required Actions**

In accordance with Section 12VAC5-590-540 A 4 of the Regulations, you are required to issue a Tier 2 public notice (“Notice”) to the consumers in the area served by the waterworks in accordance



with the public notification requirements described below:

**Public Notice:** This Notice requires you to notify consumers in the area served **within 30 days** following receipt of this letter. This Notice must be handled as follows:

- You must distribute the Notice no later than *(date)*.
- The Notice must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example), you must also use other delivery methods to provide the Notice to these consumers as well. Examples of other methods include, but are not limited to, publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the waterworks.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved.)*
- You must repeat distribution of the Notice every three months, for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved.)*

**Draft Notice:** Attached is a draft Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, if the information is accurate, and it contains all the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action; e.g., field staff to consider submission of “as-built” plans & specs, stop use of “new” equipment/source, issue boil water notice, consult with Central Office on other options.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at (phone number) or email at (email address).

Sincerely,

Name & Title  
Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 2 Public Notice
2. Certification Form

ec: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director.  
Administrator/Manager, name of County, County

## NOTICE TO CONSUMERS

### IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

(Insert Name) Waterworks, PWSID No. (insert #)

#### Operating Facility Beyond Permit Conditions

Our water system recently violated a drinking water regulation for operating a waterworks *(specify facility & rate)* beyond permit conditions *(describe permit conditions)* as established in the Operation Permit. Although this is not an emergency, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation. On *(give date)*, we received notice that our waterworks has been operating a waterworks *(specify facility)* beyond its rated permitted design condition. *(Field staff may add additional clarifying details as needed)*.

#### What should I do?

- There is nothing you need to do. You do not need to boil your water or take other corrective actions. However, if you have specific health concerns, consult your doctor.
- If you have a severely compromised immune system, have an infant, are pregnant, or pregnant, or are elderly, you may be at increased risk and should seek advice from your health care providers about drinking this water.

#### What does this mean?

This is not an emergency. If it had been, you would have been notified within 24 hours.

#### What is being done?

We are taking the necessary steps to consult with the Office of Drinking Water field staff and to proceed with an application to update our operation permit to bring our waterworks into compliance and proper permit status. We anticipate resolving the problem within *(mutually agreeable time frame)*.

For more information, please contact *(name of contact)* at *(phone number)* or *(mailing address)*.

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by *(system)*. State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Operating Facility Beyond Permit Conditions - (tracking info –monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
*(Community/Noncommunity Waterworks)*

By direct (hand) delivery on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_

\_\_\_\_\_

Provided to the following broadcast media (list: television/radio/website/social media) on

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ (method and date)

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address

**FM-C14-T4-Attachment 5.** New Waterworks or Components in Service without Approval.  
**INSTRUCTIONS:** Field staff to use this template to finalize the State NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

### NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: New Waterworks or Components in Service without Approval

Dear Waterworks Owner:

This letter is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-190 B of the Virginia *Waterworks Regulations* (“Regulations”) for introducing a new waterworks or waterworks components into service without the approval of the department.

Section 12VAC5-590-190 B states, in part, “No owner or other person shall cause or allow the construction or change in the manner of transmission, storage, purification, treatment, or distribution of water (including the extension of water pipes for the distribution of water) at any waterworks in the Commonwealth without a written construction permit ... from the [State Health Commissioner].”

The Virginia Department of Health classifies this alleged violation as Tier 2 in accordance with Section 12VAC5-590-540 A 4 of the Regulations, which states in part, “[t]he [Virginia Department of Health] may require public notice for violations or other situations not listed in this section. ...” In the case of a Tier 2 violation or situation, Section 12VAC5-590-540 C 2 a of the Regulations requires the waterworks owner to “[p]rovide a public notice as soon as practical, but no later than 30 days after the owner learns of the violation, exceedance, or situation.”

(Field staff to list/provide the details for any required follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations, including any “calling out” for a schedule and/or completion dates for each corrective action. Field staff to consider: submission of “as-builts” plans & specs, stop use of “new” equipment/source, issue boil water notice, consult with Central Office on other options.)

## **Required Actions**

In accordance with Section 12VAC5-590-540 A 4 of the Regulations, you are required to issue a Tier 2 public notice (“Notice”) to the consumers in the area served by the waterworks in accordance with the public notification requirements described below:

**Public Notice:** This Notice requires you to notify consumers in the area served **within 30 days** following receipt of this letter. This Notice must be handled as follows:

- You must distribute the Notice no later than *(date)*.
- The Notice must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example), you must also use other delivery methods to provide the Notice to these consumers as well. Examples of other methods include, but are not limited to, publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the waterworks.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved.)*
- You must repeat distribution of the Notice every three months, for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved.)*

**Draft Notice:** Attached is a draft Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *date*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement

actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at (phone number) or email at (email address).

Sincerely,

Name & Title  
Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 2 Public Notice
2. Certification Form

cc: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director. Administrator/Manager, name of County, County

## NOTICE TO CONSUMERS

### IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

(Insert Name) Waterworks, PWSID No. (insert #)

#### New Waterworks or Components in Service without Approval

Our water system recently violated a drinking water regulation for introducing a new waterworks or waterworks components into service without the approval of the department. Although this is not an emergency, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation. *(Field staff may add additional clarifying details as needed).*

#### What should I do?

- There is nothing you need to do. You do not need to boil your water or take other corrective actions. However, if you have specific health concerns, consult your doctor.
- If you have a severely compromised immune system, have an infant, are pregnant, or pregnant, or are elderly, you may be at increased risk and should seek advice from your health care providers about drinking this water.

#### What does this mean?

This is not an emergency. If it had been, you would have been notified within 24 hours.

#### What is being done?

We are taking the necessary steps to ensure that the plans and specifications for the modifications are submitted for review and approval by the Office of Drinking Water field staff, as well as water quality results, in order to bring our waterworks into compliance and proper permit status. We anticipate resolving the problem within *(mutually agreeable time frame)*.

For more information, please contact *(name of contact)* at *(phone number)* or *(mailing address)*.

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by *(system)*. State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.



SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: New Waterworks or Components in Service without Approval - (tracking info-monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
(Community/Noncommunity Waterworks)

By direct (hand) delivery on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_

Provided to the following broadcast media (list: television/radio/website/social media) on

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ (method and date)

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address

**FM-C14-T4-Attachment 6.** Lacks Properly Licensed Operator.

**INSTRUCTIONS:** Field staff to use this template to finalize the State NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

### NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Lacks Properly Licensed Operator

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-461 B 2 of the Virginia *Waterworks Regulations* (“Regulations”) for failing to provide a properly licensed operator at the waterworks.

12VAC5-590-461 B 2 states, in part, “A classified waterworks shall be operated by an operator having a valid license issued by the Commonwealth of Virginia (18VAC160-30-90) with a classification equal to or higher than the classification of the waterworks or water treatment plant being operated.”

The Virginia Department of Health classifies this alleged violation as Tier 2 in accordance with Section 12VAC5-590-540 A 4 of the Regulations, which states in part, “[t]he [Virginia Department of Health] may require public notice for violations or other situations not listed in this section. . . .” In the case of a Tier 2 violation or situation, Section 12VAC5-590-540 C 2 a of the Regulations requires the waterworks owner to “[p]rovide a public notice as soon as practical, but no later than 30 days after the owner learns of the violation, exceedance, or situation.”

(Field staff may want to insert a more detailed narrative to describe the basis of this NOAV. Narrative may include observations, sample locations, results, dates, times, etc. where appropriate.)

## **Required Actions**

In accordance with Section 12VAC5-590-540 of the Regulations, you are required to issue a Tier 2 Public Notice (“Notice”) to the consumers in the area served in accordance to the public notification requirements described below:

**Public Notice:** The Notice requires you to notify consumers in the area served **within 30 days** of learning of the violation. This Notice must be handled as follows:

- You must provide a Notice to consumers no later than *(date)*; (i.e., 30 days from date of letter or 30 days from when owner was apprised of the violation, whichever comes first.)
- Your Notice to consumers must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example) you must also use other delivery methods to provide notice to these consumers as well. Examples of other methods include (but are not limited to) notice publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the system.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved).*
- You must repeat distribution of the Notice every three months, for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved).*

**Draft Notice:** Attached is a draft Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil

charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at (phone number) or email at (email address).

Sincerely,

Name & Title  
Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 2 Public Notice
2. Certification Form

ec: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director. Administrator/Manager, name of County, County

**NOTICE TO CONSUMERS  
of the (Name) WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Lacks Properly Licensed Operator**

Our water system recently violated a drinking water regulation. Although this situation does not require that you take immediate action, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation. We failed to provide a properly licensed operator at the waterworks. *(Field staff may add additional clarifying details as needed).*

**What should I do?**

- There is nothing you need to do. You do not need to boil your water or take other corrective actions. However, if you have specific health concerns, consult your doctor.
- If you have a severely compromised immune system, have an infant, are pregnant, or are elderly, you may be at increased risk and should seek advice from your healthcare providers about drinking this water. General guidelines on ways to lessen the risk are available from EPA's Safe Drinking Water Hotline at 1-800-426-4791.

**What does this mean?**

This is not an emergency. If it had been, you would have been notified within 24 hours.

**What is being done?**

We are taking the necessary steps to ensure that we acquire the services of a properly licensed operator, in order to bring our waterworks into compliance and proper permit status. We anticipate resolving the problem within *(mutually agreeable time frame)*.

For more information, please contact *(name of contact)* at *(phone number)* or *(mailing address)*.

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by *(system)*. State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Failure to Provide Properly Licensed Operator - (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
(Community/Noncommunity Waterworks)

By direct (hand) delivery on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_

Provided to the following broadcast media (list: television/radio/website/social media) on

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ (method and date)

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address

**FM-C14-T4-Attachment 7.** No Waterworks Business Operations Plan (WBOP).

**INSTRUCTIONS:** Field staff to use this template to finalize the State NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

## NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: No Waterworks Business Operations Plan (WBOP)

Dear Waterworks Owner:

This letter is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, § 32.1-172 B of the Code of Virginia, and 12VAC5-590-310 B of the Virginia *Waterworks Regulations* (“Regulations”) for failing to establish a Comprehensive Business Plan or Waterworks Business Operation Plan (WBOP).

Section 12VAC5-590-310 B states, “The [State Health Commissioner] may require submission of a waterworks business operation plan as a condition to amend or reissue an operation permit. The waterworks business operation plan shall satisfy the requirements of 12VAC5-590-200 A 5.” (*Other possible citations that require a waterworks business operation plan include 12VAC5-590-200 A 5 and 12VAC5-590-290 F 1.*)

(Field staff may want to insert a more detailed narrative to describe the basis of this NOAV. Narrative may include observations, sample locations, results, dates, times, etc. where appropriate.)

### **Required Actions**

In accordance with Section 12VAC5-590-540 A 4 of the Regulations, you are required to issue a Tier 2 public notice (“Notice”) to the consumers in the area served by the waterworks in accordance with the public notification requirements described below:

**Public Notice:** This Notice requires you to notify consumers in the area served **within 30 days** following receipt of this letter. This Notice must be handled as follows:

- You must distribute the Notice no later than *(date)*.
- The Notice must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example), you must also use other delivery methods to provide the Notice to these consumers as well. Examples of other methods include, but are not limited to, publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the waterworks.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved.)*
- You must repeat distribution of the Notice every three months, for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved.)*

**Draft Notice:** Attached is a draft Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at *(phone number)* or email at *(email address)*.

Sincerely,



Name & Title  
Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 2 Public Notice
2. Certification Form

cc: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director.  
Administrator/Manager, name of County, County

## NOTICE TO CONSUMERS

### IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

(Insert Name) Waterworks, PWSID No. (insert #)

#### No Waterworks Business Operations Plan (WBOP)

Our water system recently violated a drinking water regulation. Although this is not an emergency, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation. On (give date), we received notice that our waterworks failed to establish a Comprehensive Business Plan. (Field staff may add additional clarifying details as needed).

#### What should I do?

- There is nothing you need to do. You do not need to boil your water or take other corrective actions. However, if you have specific health concerns, consult your doctor.
- If you have a severely compromised immune system, have an infant, are pregnant, or pregnant, or are elderly, you may be at increased risk and should seek advice from your health care providers about drinking this water.

#### What does this mean?

This is not an emergency. If it had been, you would have been notified within 24 hours.

#### What is being done?

We are taking the necessary steps to develop an appropriate comprehensive business plan for review and approval by the Office of Drinking Water field staff in order to bring our waterworks into compliance and proper permit status. We anticipate resolving the problem within (mutually agreeable time frame).

For more information, please contact (name of contact) at (phone number) or (mailing address).

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by (system). State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: No Waterworks Business Operations Plan (WBOP) - (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
*(Community Waterworks)*

By direct (hand) delivery on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_

Provided to the following broadcast media *(list: television/radio/website/social media)* on

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ *(method and date)*

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address

**FM-C14-T4-Attachment 8.** Failure to Establish a Cross-Connection Control Program.

**INSTRUCTIONS:** Field staff to use this template to finalize the State NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

## NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Failure to Establish a Cross-Connection Control Program

Dear Waterworks Owner:

This letter is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-580 A of the Virginia *Waterworks Regulations* (“Regulations”) for failing to establish a Cross-Connection Control Program (CCCP). The Regulations characterize this alleged violation as a State violation.

Section 12VAC5-590-580 A states, in part, “Every owner shall establish and enforce cross-connection control program (CCCP) in accordance with 12VAC5-590-360....”

The Virginia Department of Health classifies this alleged violation as Tier 2 in accordance with Section 12VAC5-590-540 A 4 of the Regulations, which states in part, “[t]he [Virginia Department of Health] may require public notice for violations or other situations not listed in this section. . . .” In the case of a Tier 2 violation or situation, Section 12VAC5-590-540 C 2 a of the Regulations requires the waterworks owner to “[p]rovide the public notice as soon as practical, but no later than 30 days after the owner learns of the violation, exceedance, or situation.”

(Field staff may want to insert a more detailed narrative to describe the basis of this NOAV. Narrative may include observations, sample locations, results, dates, times, etc. where appropriate.)

### **Required Actions**

In accordance with Section 12VAC5-590-540 A 4 of the Regulations, you are required to issue a Tier 2 public notice (“Notice”) to the consumers in the area served by the waterworks in accordance

with the public notification requirements described below:

**Public Notice:** This Notice requires you to notify consumers in the area served **within 30 days** following receipt of this letter. This Notice must be handled as follows:

- You must distribute the Notice no later than *(date)*.
- The Notice must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example), you must also use other delivery methods to provide the Notice to these consumers as well. Examples of other methods include, but are not limited to, publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the waterworks.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved.)*
- You must repeat distribution of the Notice every three months, for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved.)*

**Draft Notice:** Attached is a draft Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at *(phone number)* or email at *(email address)*.

Sincerely,

Name & Title

Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 2 Public Notice
2. Certification Form

cc: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director.  
Administrator/Manager, name of County, County

## NOTICE TO CONSUMERS

### IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

(Insert Name) Waterworks, PWSID No. (insert #)

#### Failure to Establish a Cross-Connection Control Program

Our water system recently violated a drinking water regulation. Although this is not an emergency, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation. On (give date), we received notice that our waterworks failed to establish a cross-connection control program (CCCP). (Field staff may add additional clarifying details as needed).

#### What should I do?

- There is nothing you need to do. You do not need to boil your water or take other corrective actions. However, if you have specific health concerns, consult your doctor.
- If you have a severely compromised immune system, have an infant, are pregnant, or pregnant, or are elderly, you may be at increased risk and should seek advice from your health care providers about drinking this water.

#### What does this mean?

This is not an emergency. If it had been, you would have been notified within 24 hours.

#### What is being done?

We are taking the necessary steps to ensure that an active cross-connection control program is developed for review and approval by the Office of Drinking Water, in order to bring our waterworks into compliance and proper permit status. We anticipate resolving the problem within (mutually agreeable time frame).

For more information, please contact (name of contact) at (phone number) or (mailing address).

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by (system). State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Failure to Establish a Cross-Connection Control Program - (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
(Community/Noncommunity Waterworks)

By direct (hand) delivery on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_

Provided to the following broadcast media (list: television/radio/website/social media) on

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ (method and date)

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address



**FM-C14-T4-Attachment 9.** Failure to Implement an Approved CCCP.

**INSTRUCTIONS:** Field staff to use this template to finalize the State NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

## NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Failure to Implement an Approved Cross-Connection Control Program

Dear Waterworks Owner:

This letter is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-580 A of the Virginia *Waterworks Regulations* (“Regulations”) for failing to implement your approved Cross-Connection Control Program (CCCP).

Section 12VAC5-590-580 A states, in part, “Every owner shall establish and enforce cross-connection control program (CCCP) in accordance with 12VAC5-590-360.”

The Virginia Department of Health classifies this alleged violation as Tier 2 in accordance with Section 12VAC5-590-540 A 4 of the Regulations, which states in part, “[t]he [Virginia Department of Health] may require public notice for violations or other situations not listed in this section. . . .” In the case of a Tier 2 violation or situation, Section 12VAC5-590-540 C 2 a of the Regulations requires the waterworks owner to “[p]rovide the public notice as soon as practical, but no later than 30 days after the owner learns of the violation, exceedance, or situation.”

Field staff may want to insert a more detailed narrative to describe the basis of this NOAV. Narrative may include observations, sample locations, results, dates, times, etc. where appropriate.)

### **Required Actions**

In accordance with Section 12VAC5-590-540 A 4 of the Regulations, you are required to issue a Tier 2 public notice (“Notice”) to the consumers in the area served by the waterworks in accordance with the public notification requirements described below:

**Public Notice:** This Notice requires you to notify consumers in the area served **within 30 days** following receipt of this letter. This Notice must be handled as follows:

- You must distribute the Notice no later than (date).
- The Notice must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example), you must also use other delivery methods to provide the Notice to these consumers as well. Examples of other methods include, but are not limited to, publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the waterworks.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. (This requirement may be deleted if the violation has already been resolved.)
- You must repeat distribution of the Notice every three months, for as long as the violation persists. (This requirement may be deleted if the violation has already been resolved).

**Draft Notice:** Attached is a draft Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than (date), you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** (Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at (phone number) or email at (email address).

Sincerely,

Name & Title  
Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 2 Public Notice
2. Certification Form

cc: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director.  
Administrator/Manager, name of County, County

## NOTICE TO CONSUMERS

### IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

(Insert Name) Waterworks, PWSID No. (insert #)

#### Failure to Implement an Approved Cross-Connection Control Program

Our water system recently violated a drinking water regulation. Although this is not an emergency, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation. On (give date), we received notice that our waterworks failed to implement the approved cross-connection control program (CCCP). (Field staff may add additional clarifying details as needed).

#### What should I do?

- There is nothing you need to do. You do not need to boil your water or take other corrective actions. However, if you have specific health concerns, consult your doctor.
- If you have a severely compromised immune system, have an infant, are pregnant, or pregnant, or are elderly, you may be at increased risk and should seek advice from your health care providers about drinking this water.

#### What does this mean?

This is not an emergency. If it had been, you would have been notified within 24 hours.

#### What is being done?

We are taking the necessary steps to ensure that an active cross-connection control program is developed for review and approval by the Office of Drinking Water, in order to bring our waterworks into compliance and proper permit status. We anticipate resolving the problem within (mutually agreeable time frame).

For more information, please contact (name of contact) at (phone number) or (mailing address).

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by (system). State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Failure to Implement an Approved Cross-Connection Control Program - (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
(Community/Noncommunity Waterworks)

By direct (hand) delivery on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_  
\_\_\_\_\_

Provided to the following broadcast media (list: television/radio/website/social media) on

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ (method and date)

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address

**FM-C14-T4-Attachment 10.** Failure to Pay Waterworks Operation Fee.

**INSTRUCTIONS:** Field staff to use this template to finalize the State NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

**NOTICE OF ALLEGED VIOLATION**

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Failure to Pay Waterworks Operation Fee

Dear Waterworks Owner:

This notice is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, § 32.1-171.1 A of the Code of Virginia for failing to pay the waterworks operation fee.

Section § 32.1-171.1 A of the Code of Virginia states, in part, “Every owner of a waterworks shall pay to the [Virginia Department of Health] a waterworks operation fee....”

The Virginia Department of Health classifies this alleged violation as Tier 2 in accordance with Section 12VAC5-590-540 A 4 of the Regulations, which states in part, “[t]he [Virginia Department of Health] may require public notice for violations or other situations not listed in this section....” In the case of a Tier 2 violation or situation, Section 12VAC5-590-540 C 2 a of the Regulations requires the waterworks owner to “[p]rovide the public notice as soon as practical, but no later than 30 days after the owner learns of the violation, exceedance, or situation.”

[Field staff to insert a narrative to authenticate the situational correctness of this NOAV based on the selection(s) above, taking into account also the urgency of the situation. Narrative to include dates and times where appropriate.]

**Required Actions**

In accordance with Section 12VAC5-590-540 of the Regulations, you are required to issue a Tier 2 public notice (“Notice”) to the consumers in the area served in accordance to the public notification requirements described below:

**Public Notice:** The Notice requires you to notify consumers in the area served **within 30 days** of learning of the violation. This Notice must be handled as follows:

- You must provide a Notice to consumers no later than *(date)*; (i.e., 30 days from date of letter or 30 days from when owner was apprised of the violation, whichever comes first.)
- Your Notice to consumers must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example) you must also use other delivery methods to provide notice to these consumers as well. Examples of other methods include (but are not limited to) notice publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the system.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved).*
- You must repeat distribution of the Notice every three months, for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved).*

**Draft Notice:** Attached is a draft Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at *(phone number)* or email at *(email address)*.

Sincerely,

Name & Title  
Field office name

ABC.xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 4 Public Notice
2. Certification Form

cc: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director.  
Administrator/Manager, name of County, County



**NOTICE TO CONSUMERS  
of the (Name) WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Failure to Pay Waterworks Operation Fee**

Our water system recently violated a drinking water regulation for failing to pay the waterworks operation fee. Although this situation does not require that you take immediate action, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation. *[Field staff to briefly describe the violation, to include specifics such as dates, operational history, etc. to summarize situational correctness].*

**What should I do?**

- There is nothing you need to do. You do not need to boil your water or take other corrective actions. However, if you have specific health concerns, consult your doctor.
- If you have a severely compromised immune system, have an infant, are pregnant, or are elderly, you may be at increased risk and should seek advice from your healthcare providers about drinking this water. General guidelines on ways to lessen the risk are available from EPA's Safe Drinking Water Hotline at 1-800-426-4791.

**What does this mean?**

This is not an emergency. If it had been, you would have been notified within 24 hours.

**What is being done?**

*[Field staff to describe the corrective actions required by the waterworks owner and when the violation is expected to be resolved.]*

For more information, please contact *(name of contact)* at *(phone number)* or *(mailing address)*.

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by *(system)*. State Water System ID#: \_\_\_\_\_.  
Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Failure to Pay Waterworks Operation Fee - (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
(Community/Noncommunity Waterworks)

By direct (hand) delivery on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_

Provided to the following broadcast media (list: television/radio/website/social media) on

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ (method and date)

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address

**FM-C14-T4-Attachment 11.** Failure to Report by the 10<sup>th</sup> Day of Month.

**INSTRUCTIONS:** Field staff to use this template to finalize the NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

## NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Failure to Report by the 10<sup>th</sup> Day of Month

Dear Waterworks Owner:

This letter is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-530 A of the Virginia *Waterworks Regulations* (“Regulations”) for failing to report results of all required monitoring activity by the 10<sup>th</sup> day of the month following the month it is due.

Section 12VAC5-590-530 A states, in part, “The results of all required monitoring activity shall be reported by the owner or the owner's authorized agent to the [Virginia Department of Health] no later than (i) the 10th day of the month following the month during which the test results were received, or (ii) the 10th day following the end of the monitoring period, whichever is shorter, unless stipulated otherwise by the [Virginia Department of Health].”

The Virginia Department of Health classifies this alleged violation as Tier 3 in accordance with Section 12VAC5-590-540 A 4 of the Regulations, which states in part, “[t]he [Virginia Department of Health] may require public notice for violations or other situations not listed in this section. . . .” In the case of a Tier 3 violation or situation, Section 12VAC5-590-540 C 3 a of the Regulations requires the waterworks owner to “[p]rovide the public notice not later than one year after the owner learns of the violation, exceedance, or situation. . . .”

(Field staff may want to insert a more detailed narrative to describe the basis of this NOAV. Narrative may include observations, sample locations, results, dates, times, etc. where appropriate.)

## **Required Actions**

In accordance with Section 12VAC5-590-540 A 4 of the Regulations, you are required to issue a Tier 3 public notice (“Notice”) to the consumers in the area served by the waterworks in accordance with the public notification requirements described below:

**Public Notice:** Notify consumers in the area served **within 12 months** of learning of the violation. This Notice must be handled as follows:

- You must distribute the Notice no later than *(date)*.
- The Notice must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example), you must also use other delivery methods to provide the Notice to these consumers as well. Examples of other methods include, but are not limited to, publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the waterworks.
- You may choose to include the Notice as an enclosure with or as an integral part of your Consumer Confidence Report (CCR) for *(year)* water quality data. To do so, the combined CCR and public Notice must be distributed to consumers by July 1, *(year)*, AND you must take steps to ensure that the CCR and public Notice reach all persons served by the waterworks. This requirement is more stringent than the “good faith effort” requirements for distributing the CCR alone.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved.)*
- You must repeat distribution of the Notice annually for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved.)*

**Draft Notice:** Attached is a draft Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at (phone number) or email at (email address).

Sincerely,

Name & Title  
Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier Public Notice
2. Certification Form

ec: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director. Administrator/Manager, name of County, County

## NOTICE TO CONSUMERS

### IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

(Insert Name) Waterworks, PWSID No. (insert #)

#### Failure to Report by the 10<sup>th</sup> Day of Month

Our water system recently violated a drinking water regulation. Although this is not an emergency, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation. On (give date), we received notice that our waterworks failed to submit reports of all required monitoring activity by the 10<sup>th</sup> of the month following the month it is due. (Field staff may add additional clarifying details as needed).

#### What should I do?

- There is nothing you need to do. You do not need to boil your water or take other corrective actions. However, if you have specific health concerns, consult your doctor.
- If you have a severely compromised immune system, have an infant, are pregnant, or pregnant, or are elderly, you may be at increased risk and should seek advice from your health care providers about drinking this water.

#### What does this mean?

This is not an emergency. If it had been, you would have been notified within 24 hours.

#### What is being done?

We are taking the necessary steps to ensure that all required monitoring report(s) are submitted by the 10<sup>th</sup> day of the month following the month the report is due, for review by the Office of Drinking Water field staff in order to bring our waterworks into compliance status. We anticipate resolving the problem within (mutually agreeable time frame).

For more information, please contact (name of contact) at (phone number) or (mailing address).

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by (system). State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Failure to Report by the 10<sup>th</sup> Day of Month - (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
*(Community/Noncommunity Waterworks)*

By direct (hand) delivery on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_

\_\_\_\_\_

Provided to the following broadcast media (list: television/radio/website/social media) on

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ (method and date)

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address

**FM-C14-T4-Attachment 12.** Failure to Perform the Responsibilities of the Waterworks Owner.  
**INSTRUCTIONS:** Field staff to use this template to finalize the State NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

### NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Failure to Perform the Responsibilities of the Waterworks Owner

Dear Waterworks Owner:

This letter is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-360 A of the Virginia *Waterworks Regulations* (“Regulations”) for failing to undertake responsibilities of the waterworks owner.

Section 12VAC5-590-360 A states, in part, “The owner shall provide and maintain conditions throughout the entirety of the waterworks in a manner that will assure a high degree of capability and reliability.... This requirement shall pertain to the source water, transmission, treatment, storage, and distribution system facilities and the operation thereof. The owner shall identify and evaluate factors with the potential for impairing the quality of the water delivered to the consumers. Preventative control measures... shall be promptly implemented to protect public health.” Section 12VAC5-590-360 B states, in part, “...the owner shall exercise control of the waterworks from the source water to the service connection.”

The Virginia Department of Health classifies this alleged violation as Tier 3 in accordance with Section 12VAC5-590-540 A 4 of the Regulations, which states in part, “[t]he [Virginia Department of Health] may require public notice for violations or other situations not listed in this section....” In the case of a Tier 3 violation or situation, Section 12VAC5-590-540 C 3 a of the Regulations requires the waterworks owner to “[p]rovide the public notice not later than one year after the owner learns of the violation, exceedance, or situation....”

(Field staff may want to insert a more detailed narrative to describe the basis of this NOAV. Narrative may include observations, sample locations, results, dates, times, etc. where appropriate.)



## **Required Actions**

In accordance with Section 12VAC5-590-540 A 4 of the Regulations, you are required to issue a Tier 3 public notice (“Notice”) to the consumers in the area served by the waterworks in accordance with the public notification requirements described below:

**Public Notice:** Notify consumers in the area served **within 12 months** of learning of the violation. This Notice must be handled as follows:

- You must distribute the Notice no later than *(date)*.
- The Notice must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example), you must also use other delivery methods to provide the Notice to these consumers as well. Examples of other methods include, but are not limited to, publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the waterworks.
- You may choose to include the Notice as an enclosure with or as an integral part of your Consumer Confidence Report (CCR) for *(year)* water quality data. To do so, the combined CCR and public Notice must be distributed to consumers by July 1, *(year)*, AND you must take steps to ensure that the CCR and public Notice reach all persons served by the waterworks. This requirement is more stringent than the “good faith effort” requirements for distributing the CCR alone.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved.)*
- You must repeat distribution of the Notice annually for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved.)*

**Draft Notice:** Attached is a draft Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at (phone number) or email at (email address).

Sincerely,

Name & Title  
Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 2 Public Notice
2. Certification Form

ec: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director. Administrator/Manager, name of County, County

## NOTICE TO CONSUMERS

### IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

(Insert Name) Waterworks, PWSID No. (insert #)

#### Failure to Perform the Responsibilities of the Waterworks Owner

Our water system recently violated a drinking water regulation. Although this is not an emergency, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation. On (give date), we received notice that we failed to undertake responsibilities of the waterworks owner. (Field staff may add additional clarification as needed).

#### **What should I do?**

- There is nothing you need to do. You do not need to boil your water or take other corrective actions. However, if you have specific health concerns, consult your doctor.
- If you have a severely compromised immune system, have an infant, are pregnant, or pregnant, or are elderly, you may be at increased risk and should seek advice from your health care providers about drinking this water.

#### **What does this mean?**

This is not an emergency. If it had been, you would have been notified within 24 hours.

#### **What is being done?**

We are taking the necessary steps to ensure through consultation with the Office of Drinking Water field staff that operations and conditions at our waterworks are satisfactory in order to bring it into compliance and proper permit status. We anticipate resolving the problem within [mutually agreeable time frame].

For more information, please contact (name of contact) at (phone number) or (mailing address).

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by (system). State Water System ID#: \_\_\_\_\_.  
Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Failure to Perform the Responsibilities of the Waterworks Owner - (tracking info - monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
(Community/Noncommunity Waterworks)

By direct (hand) delivery on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_

Provided to the following broadcast media (list: television/radio/website/social media) on

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ (method and date)

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address

**FM-C14-T4-Attachment 13. Lack of Monitoring Equipment.**

**INSTRUCTIONS:** Field staff to use this template to finalize the State NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

**NOTICE OF ALLEGED VIOLATION**

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Lack of Monitoring Equipment

Dear Waterworks Owner:

This letter is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-330 A of the Virginia *Waterworks Regulations* (“Regulations”) for failing to provide or maintain adequate monitoring equipment for process control and testing at the waterworks.

Section 12VAC5-590-330 A states, in part, “The... [Virginia Department of Health] may require the owner to install, use, and maintain monitoring equipment for the control and testing of water flowing through the water treatment plant....”

The Virginia Department of Health classifies this alleged violation as Tier 3 in accordance with Section 12VAC5-590-540 A 4 of the Regulations, which states, in part, “[t]he [Virginia Department of Health] may require public notice for violations or other situations not listed in this section....” In the case of a Tier 3 violation or situation, Section 12VAC5-590-540 C 3 a of the Regulations requires the waterworks owner to “[p]rovide the public notice not later than one year after the owner learns of the violation, exceedance, or situation....”

(Field staff may want to insert a more detailed narrative to describe the basis of this NOAV. Narrative may include observations, sample locations, results, dates, times, etc. where appropriate.)

**Required Actions**

In accordance with Section 12VAC5-590-540 A 4 of the Regulations, you are required to issue a Tier 3 public notice (“Notice”) to the consumers in the area served by the waterworks in accordance with the public notification requirements described below:

**Public Notice:** Notify consumers in the area served **within 12 months** of learning of the violation. This Notice must be handled as follows:

- You must distribute the Notice no later than *(date)*.
- The Notice must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example), you must also use other delivery methods to provide the Notice to these consumers as well. Examples of other methods include, but are not limited to, publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the waterworks.
- You may choose to include the Notice as an enclosure with or as an integral part of your Consumer Confidence Report (CCR) for *(year)* water quality data. To do so, the combined CCR and public Notice must be distributed to consumers by July 1, *(year)*, AND you must take steps to ensure that the CCR and public Notice reach all persons served by the waterworks. This requirement is more stringent than the “good faith effort” requirements for distributing the CCR alone.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved.)*

**Draft Notice:** Attached is a draft Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil

charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at (phone number) or email at (email address).

Sincerely,

Name & Title  
Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 2 Public Notice
2. Certification Form

ec: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director. Administrator/Manager, name of County, County

## NOTICE TO CONSUMERS

### IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

(Insert Name) Waterworks, PWSID No. (insert #)

#### Lack of Monitoring Equipment

Our water system recently violated a drinking water regulation. Although this is not an emergency, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation. On (give date), we received notice that our waterworks failed to provide adequate monitoring equipment for process control and reporting of its operations. (Field staff may add additional clarifying details as needed).

#### What should I do?

- There is nothing you need to do. You do not need to boil your water or take other corrective actions. However, if you have specific health concerns, consult your doctor.
- If you have a severely compromised immune system, have an infant, are pregnant, or pregnant, or are elderly, you may be at increased risk and should seek advice from your health care providers about drinking this water.

#### What does this mean?

This is not an emergency. If it had been, you would have been notified within 24 hours.

#### What is being done?

We are taking the necessary steps to ensure that the required monitoring equipment are provided and functioning to the satisfaction of the Office of Drinking Water field staff, in order to bring our waterworks into compliance. We anticipate resolving the problem within (mutually agreeable time frame).

For more information, please contact (name of contact) at (phone number) or (mailing address).

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by (system). State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.



SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Lack of Monitoring Equipment - (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
(Community/Noncommunity Waterworks)

By direct (hand) delivery on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_

Provided to the following broadcast media (list: television/radio/website/social media) on

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ (method and date)

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address

**FM-C14-T4-Attachment 14.** Failure to Meter Total Water Production - CWS Waterworks.

**INSTRUCTIONS:** Field staff to use this template to finalize the State NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

## NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Failure to Meter Total Water Production - Community Waterworks

Dear Waterworks Owner:

This letter is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-700 A of the Virginia *Waterworks Regulations* (“Regulations”) for failing to provide metering of total water production at your community (CWS) waterworks.

Section 12VAC5-590-700 A states, “The design of all community waterworks shall provide metering of total water production.”

The Virginia Department of Health classifies this alleged violation as Tier 3 in accordance with Section 12VAC5-590-540 A 4 of the Regulations, which states in part, “[t]he [Virginia Department of Health] may require public notice for violations or other situations not listed in this section....” In the case of a Tier 3 violation or situation, Section 12VAC5-590-540 C 3 a of the Regulations requires the waterworks owner to “[p]rovide the public notice not later than one year after the owner learns of the violation, exceedance, or situation....”

(Field staff may want to insert a more detailed narrative to describe the basis of this NOAV. Narrative may include observations, sample locations, results, dates, times, etc. where appropriate.)

### **Required Actions**

In accordance with Section 12VAC5-590-540 A 4 of the Regulations, you are required to issue a Tier 3 public notice (“Notice”) to the consumers in the area served by the waterworks in accordance with the public notification requirements described below:

**Public Notice:** Notify consumers in the area served **within 12 months** of learning of the violation. This Notice must be handled as follows:

- You must distribute the Notice no later than *(date)*.
- The Notice must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example), you must also use other delivery methods to provide the Notice to these consumers as well. Examples of other methods include, but are not limited to, publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the waterworks.
- You may choose to include the Notice as an enclosure with or as an integral part of your Consumer Confidence Report (CCR) for *(year)* water quality data. To do so, the combined CCR and public Notice must be distributed to consumers by July 1, *(year)*, AND you must take steps to ensure that the CCR and public Notice reach all persons served by the waterworks. This requirement is more stringent than the “good faith effort” requirements for distributing the CCR alone.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved.)*
- You must repeat distribution of the Notice annually for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved.)*

**Draft Notice:** Attached is a draft Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action, e.g., 90 days for meter installation.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at (phone number) or email at (email address).

Sincerely,

Name & Title  
Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 2 Public Notice
2. Certification Form

ec: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director. Administrator/Manager, name of County, County

## NOTICE TO CONSUMERS

### IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

(Insert Name) Waterworks, PWSID No. (insert #)

#### Failure to Meter Total Water Production – Community Waterworks

Our water system recently violated a drinking water regulation. Although this is not an emergency, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation. On (give date), we received notice that our waterworks failed to provide metering of its total water production as required at community (CWS) waterworks. (Field staff may add additional clarifying details as needed).

#### What should I do?

- There is nothing you need to do. You do not need to boil your water or take other corrective actions. However, if you have specific health concerns, consult your doctor.
- If you have a severely compromised immune system, have an infant, are pregnant, or pregnant, or are elderly, you may be at increased risk and should seek advice from your health care providers about drinking this water.

#### What does this mean?

This is not an emergency. If it had been, you would have been notified within 24 hours.

#### What is being done?

We are taking the necessary steps to ensure that the total water production is metered to the satisfaction of the Office of Drinking Water field staff, in order to bring our waterworks into compliance and proper permit status. We anticipate resolving the problem within (mutually agreeable time frame).

For more information, please contact (name of contact) at (phone number) or (mailing address).

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by (system). State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Failure to Meter Total Water Production - Community Waterworks – (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
*(Community Waterworks)*

By direct (hand) delivery on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_  
\_\_\_\_\_

Provided to the following broadcast media *(list: television/radio/website/social media)* on

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ *(method and date)*

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address

**FM-C14-T4-Attachment 15.** Failure to Meter Total Water Production - NTNC Waterworks.

**INSTRUCTIONS:** Field staff to use this template to finalize the State NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

### NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Failure to Meter Total Water Production - NTNC Waterworks

Dear Waterworks Owner:

This letter is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and 12VAC5-590-700 B of the Virginia *Waterworks Regulations* (“Regulations”) for failing to provide metering of total water production at your nontransient noncommunity waterworks (NTNC).

Section 12VAC5-590-700 B states, “The design of all NTNCs that provide treatment or have a design capacity of greater than 300,000 gallons per month shall provide metering of total water production.”

The Virginia Department of Health classifies this alleged violation as Tier 3 in accordance with Section 12VAC5-590-540 A 4 of the Regulations, which states in part, “[t]he [Virginia Department of Health] may require public notice for violations or other situations not listed in this section. . . .” In the case of a Tier 3 violation or situation, Section 12VAC5-590-540 C 3 a of the Regulations requires the waterworks owner to “[p]rovide the public notice not later than one year after the owner learns of the violation, exceedance, or situation. . . .”

(Field staff may want to insert a more detailed narrative to describe the basis of this NOAV. Narrative may include observations, sample locations, results, dates, times, etc. where appropriate.)

## **Required Actions**

In accordance with Section 12VAC5-590-540 A 4 of the Regulations, you are required to issue a Tier 3 public notice (“Notice”) to the consumers in the area served by the waterworks in accordance with the public notification requirements described below:

**Public Notice:** Notify consumers in the area served **within 12 months** of learning of the violation. This Notice must be handled as follows:

- You must distribute the Notice no later than *(date)*.
- Post the notice in conspicuous locations throughout the system or by direct delivery or mail to each customer and known service connection; and
- Any other method reasonably calculated to reach others served if they would not normally be reached by the method above. Such people may include those who may not see a posted notice because it is not in a location they routinely pass by. Methods may include publication in a local newspaper or newsletter distributed to consumers, use of e-mail to notify employees or students, or delivery of multiple copies in central locations (e.g., community centers).
- If you post a notice, it must remain posted for as long as the violation or situation persists. If the violation or situation is already resolved by the time you write the notice, you must post the notice for at least seven days.
- You must repeat distribution of the Notice annually for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved).*

**Draft Notice:** Attached is a draft Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action; e.g., 90 days for meter installation.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil



charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26-27 and 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at (phone number) or email at (email address).

Sincerely,

Name & Title  
Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 2 Public Notice
2. Certification Form

ec: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director. Administrator/Manager, name of County, County

## NOTICE TO CONSUMERS

### IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

(Insert Name) Waterworks, PWSID No. (insert #)

#### Failure to Meter Total Water Production - NTNC Waterworks

Our water system recently violated a drinking water regulation. Although this is not an emergency, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation. On (give date), we received notice that our waterworks failed to provide metering of its total water production as required at nontransient noncommunity (NTNC) waterworks. (Field staff may add additional clarifying details as needed).

#### What should I do?

- There is nothing you need to do. You do not need to boil your water or take other corrective actions. However, if you have specific health concerns, consult your doctor.
- If you have a severely compromised immune system, have an infant, are pregnant, or pregnant, or are elderly, you may be at increased risk and should seek advice from your health care providers about drinking this water.

#### What does this mean?

This is not an emergency. If it had been, you would have been notified within 24 hours.

#### What is being done?

We are taking the necessary steps to ensure that the total water production is metered to the satisfaction of the Office of Drinking Water field staff, in order to bring our waterworks into compliance and proper permit status. We anticipate resolving the problem within (mutually agreeable time frame).

For more information, please contact (name of contact) at (phone number) or (mailing address).

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by (system). State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Failure to Meter Total Water Production - NTNC Waterworks – (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
*(Noncommunity Waterworks)*

Posted on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

At the following locations: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

By direct (hand) delivery on \_\_\_\_\_ *(date)*

By mail delivery on \_\_\_\_\_ *(date)*

Other approved method \_\_\_\_\_ *(method and date)*

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address

**FM-C14-T4-Attachment 16.** Failure to Meter Total Water Production - TNC Waterworks.

**INSTRUCTIONS:** Field staff to use this template to finalize the State NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

## NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Failure to Meter Total Water Production - TNC Waterworks

Dear Waterworks Owner:

This letter is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-700 C of the Virginia *Waterworks Regulations* (“Regulations”) for failing to provide metering of total water production at your transient noncommunity waterworks (TNC).

Section 12VAC5-590-700 C states, “The design of all TNCs that provide treatment or have a design capacity of greater than 300,000 gallons per month shall provide metering of total water production.”

The Virginia Department of Health classifies this alleged violation as Tier 3 in accordance with Section 12VAC5-590-540 A 4 of the Regulations, which states in part, “[t]he [Virginia Department of Health] may require public notice for violations or other situations not listed in this section....” In the case of a Tier 3 violation or situation, Section 12VAC5-590-540 C 3 a of the Regulations requires the waterworks owner to “[p]rovide the public notice not later than one year after the owner learns of the violation, exceedance, or situation....”

(Field staff may want to insert a more detailed narrative to describe the basis of this NOAV. Narrative may include observations, sample locations, results, dates, times, etc. where appropriate.)

## **Required Actions**

In accordance with Section 12VAC5-590-540 A 4 of the Regulations, you are required to issue a Tier 3 public notice (“Notice”) to the consumers in the area served by the waterworks in accordance with the public notification requirements described below:

**Public Notice:** Notify consumers in the area served **within 12 months** of learning of the violation. This Notice must be handled as follows:

- You must distribute the Notice no later than *(date)*.
- Post the notice in conspicuous locations throughout the system or by direct delivery or mail to each customer and known service connection; and
- Any other method reasonably calculated to reach others served if they would not normally be reached by the method above. Such people may include those who may not see a posted notice because it is not in a location they routinely pass by. Methods may include publication in a local newspaper or newsletter distributed to consumers, use of e-mail to notify employees or students, or delivery of multiple copies in central locations (e.g., community centers).
- If you post a notice, it must remain posted for as long as the violation or situation persists. If the violation or situation is already resolved by the time you write the notice, you must post the notice for at least seven days.
- You must repeat distribution of the Notice annually for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved).*

**Draft Notice:** Attached is a draft Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action; e.g., 90 days for meter installation.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil

charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at (phone number) or email at (email address).

Sincerely,

Name & Title  
Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 2 Public Notice
2. Certification Form

ec: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director. Administrator/Manager, name of County, County

## NOTICE TO CONSUMERS

### IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

(Insert Name) Waterworks, PWSID No. (insert #)

#### Failure to Meter Total Water Production - TNC Waterworks

Our water system recently violated a drinking water regulation. Although this is not an emergency, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation. On (give NOAV date), we received notice that our waterworks failed to provide metering of its total water production as required at transient noncommunity waterworks (TNCs) with treatment. (Field staff may add additional clarifying details as needed).

#### What should I do?

- There is nothing you need to do. You do not need to boil your water or take other corrective actions. However, if you have specific health concerns, consult your doctor.
- If you have a severely compromised immune system, have an infant, are pregnant, or pregnant, or are elderly, you may be at increased risk and should seek advice from your health care providers about drinking this water.

#### What does this mean?

This is not an emergency. If it had been, you would have been notified within 24 hours.

#### What is being done?

We are taking the necessary steps to ensure that the total water production is metered to the satisfaction of the Office of Drinking Water field staff, in order to bring our waterworks into compliance and proper permit status. We anticipate resolving the problem within (mutually agreeable time frame).

For more information, please contact (name of contact) at (phone number) or (mailing address).

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by (system). State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Failure to Meter Total Water Production - TNC Waterworks – (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
*(Noncommunity Waterworks)*

Posted on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

At the following locations: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

By direct (hand) delivery on \_\_\_\_\_ *(date)*

By mail delivery on \_\_\_\_\_ *(date)*

Other approved method \_\_\_\_\_ *(method and date)*

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address



**FM-C14-T4-Attachment 17.** Less Than 20 psig at Service Connection.

**INSTRUCTIONS:** Field staff to use this template to finalize the State NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

## NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Less Than 20 psig at Service Connection

Dear Waterworks Owner:

This letter is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-510 C of the Virginia *Waterworks Regulations* (“Regulations”) due to the minimum working pressure is less than 20 psigauge (psig).

Section 12VAC5-590-510 C states, “All waterworks shall provide a minimum working pressure of 20 psigauge (psig) at all service connections.”

(Field staff may want to insert a more detailed narrative to describe the basis of this NOAV. Narrative may include observations, sample locations, results, dates, times, etc. where appropriate.)

The Virginia Department of Health classifies this alleged violation as Tier 3 in accordance with Section 12VAC5-590-540 A 4 of the Regulations, which states in part, “[t]he [Virginia Department of Health] may require public notice for violations or other situations not listed in this section. . . .” In the case of a Tier 3 violation or situation, Section 12VAC5-590-540 C 3 a of the Regulations requires the waterworks owner to “[p]rovide the public notice not later than one year after the owner learns of the violation, exceedance, or situation. . . .”

## **Required Actions**

In accordance with Section 12VAC5-590-540 A 4 of the Regulations, you are required to issue a Tier 3 public notice (“Notice”) to the consumers in the area served by the waterworks in accordance with the public notification requirements described below:

**Public Notice:** Notify consumers in the area served **within 12 months** of learning of the violation. This Notice must be handled as follows:

- You must distribute the Notice no later than *(date)*.
- The Notice must be mailed or directly delivered to each customer receiving a bill, and to other service connections served by your waterworks.
- If your waterworks serves consumers who do not pay water bills, or who do not have service connection addresses (apartment dwellers, university students, or nursing home patients, for example), you must also use other delivery methods to provide the Notice to these consumers as well. Examples of other methods include, but are not limited to, publication in local newspapers, delivery of multiple copies to apartment buildings, or posting the Notice in public places served by the waterworks.
- You may choose to include the Notice as an enclosure with or as an integral part of your Consumer Confidence Report (CCR) for *(year)* water quality data. To do so, the combined CCR and public Notice must be distributed to consumers by July 1, *(year)*, AND you must take steps to ensure that the CCR and public Notice reach all persons served by the waterworks. This requirement is more stringent than the “good faith effort” requirements for distributing the CCR alone.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved.)*
- You must repeat distribution of the Notice annually for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved.)*

**Draft Notice:** Attached is a draft Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action; e.g., submit a corrective action plan within 30*

days.)

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176

If you have any questions or concerns regarding this matter, please contact me at (phone number) or email at (email address).

Sincerely,

Name & Title  
Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Draft Tier 2 Public Notice
2. Certification Form

cc: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director. Administrator/Manager, name of County, County

## NOTICE TO CONSUMERS

### IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

(Insert Name) Waterworks, PWSID No. (insert #)

#### Less Than 20 psig at Service Connection

Our water system recently violated a drinking water regulation. Although this is not an emergency, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation. On (give NOAV date), we received notice that our waterworks has been operating unsatisfactorily and has resulted in the minimum is less than 20 psi gauge (psig). (Field staff may add additional clarifying details as needed).

#### What should I do?

- There is nothing you need to do. You do not need to boil your water or take other corrective actions. However, if you have specific health concerns, consult your doctor.
- If you have a severely compromised immune system, have an infant, are pregnant, or are elderly, you may be at increased risk and should seek advice from your healthcare providers about drinking this water.

#### What does this mean?

This is not an emergency. If it had been, you would have been notified within 24 hours.

#### What is being done?

We are taking the necessary steps to improve our overall operational practices and to submit a corrective action plan for review and approval by the Office of Drinking Water field staff in order to demonstrate that we can bring our waterworks into compliance over the long-term. We anticipate resolving the problem within (mutually agreeable time frame.)

For more information, please contact (name of contact) at (phone number) or (mailing address).

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by (system). State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Less Than 20 psig at Service Connection - (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
(Community/Noncommunity Waterworks)

By direct (hand) delivery on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_

\_\_\_\_\_

Provided to the following broadcast media (list: television/radio/website/social media) on

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ (method and date)

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address

**FM-C14-T5. Attachment 1. Confirmed Microbial Contamination.**

**INSTRUCTIONS:** Field staff to use this template to finalize issuing the “Special Notice” as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Confirmed Microbial Contamination

Dear Waterworks Owner:

This letter is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-380 G of the *Waterworks Regulations* (“Regulations”) due to confirmed microbial contamination in source water and failure to provide required disinfection treatment.

The Virginia Department of Health classifies this alleged violation as Tier 1 in accordance with Section 12VAC5-590-540 A 1 1 of the Regulations, which includes in Tier 1, “...violations or situations with significant potential to have serious adverse effects on human health as a result of short-term exposure, as determined by the [State Health Commissioner] or [Virginia Department of Health] on a case-by-case basis.”

In the case of a Tier 1 violation or situation, Section 12VAC5-590-540 C 1 a of the Regulations requires the waterworks owner to “[p]rovide a public notice as soon as practical but no later than 24 hours after the owner learns of the violation, exceedance, or situation.”

[Field staff to insert a narrative to authenticate the situational correctness of this NOAV based on the selection(s) above, taking into account also the urgency of the situation. Narrative to include dates and times where appropriate.]

**Required Actions**

The Waterworks Regulations characterize this as a Tier 1 violation or situation. Whenever a Tier 1 violation or situation occurs, public water supplies are required, pursuant to 12VAC5-590-540 C 1 b of the Regulations, to initiate consultation with this office within 24 hours of learning of the violation or situation. According to our records, the required consultation took place during your conversation with (insert name of field office contact) at (insert time) on (insert date). At that time, (insert name of field office contact)

described the public notification requirements and faxed you a copy of this letter and a suggested “Public Notice” to be delivered to consumers served by this waterworks.

**Public Notice:** In accordance with Section 12VAC5-590-540 A 4 of the Regulations, you are required to issue a Public Notice (“Notice”) to the consumers. This Notice requires you to notify the consumers in the area served **within 24 hours** of learning of the violation, and it must be handled as follows:

- You must distribute the Notice to consumers no later than *(time)* on *(date)*. This Notice advises your customers to **boil all tap water** used for consumption.  
*(Note to ODW staff (then delete): If applicable, this date and time must be within 24 hours from the time the waterworks became aware of the violation. It will usually be 24 hours from the consultation date and time.)*
- The Notice must be distributed in a manner to reach all persons served by hand delivering the Notice to each household connection, posting at conspicuous locations throughout the area served by the waterworks, and/or appropriate broadcast media such as television, radio, social media, or website.
- As discussed with (insert name of field office contact), you plan to take the following actions:
  - *(Field staff to list the required actions:)*
- *On a case-by-case basis, field staff may add any other public notification requirement as needed, and provide such details in this transmittal.)*
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved.)*
- You must repeat distribution of the Notice every three months, for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved.)*

**Draft Notice:** Attached is a draft Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action; field staff to use checklist (FM-C14-Attachment Chart C) for tracking these situations.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in an enforcement action. Enforcement actions

may include permit revocation, administrative orders, civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at (phone number) or email at (email address).

Sincerely,

Name & Title  
Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Tier 1 Type Public Notice
2. Certification Form

cc: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director.



**NOTICE TO CONSUMERS**  
**of the Name WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**  
**Confirmed Microbial Contamination**

**BOIL YOUR TAP WATER**

**Failure to follow this advisory could result in stomach or intestinal illness.**

The Virginia Department of Health in conjunction with the (*Local Health Department Name*) Health Department, and (*Name of waterworks*) are advising residents to use boiled tap water or bottled water for drinking and cooking purposes as a safety precaution. This precaution is necessary because (*Provide a brief explanation of problem. If the precipitating event involves confirmed fecal (E.coli) or turbidity violations, include/select the mandatory health effects below.*

*\*E. coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Human pathogens in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a greater health risk for infants, young children, the elderly, and people with severely-compromised immune systems.\**

*\*Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.\**

**DO NOT DRINK TAP WATER WITHOUT BOILING IT FIRST**

Boiled or bottled water should be used for drinking, beverage and food preparation, and making ice **until further notice**. Boiling kills bacteria and other organisms in the water. Boiling is the preferred method to assure that the tap water is safe to drink. Bring all tap water to a rolling boil, **let it boil for one minute**, and let it cool before using, or use bottled water.

If you cannot boil your tap water...

- An alternative method of purification for residents that do not have gas or electricity available is to use liquid household bleach to disinfect water. The bleach product should be recently purchased, free of additives and scents, and should contain a hypochlorite solution of at least 5.25%. Public health officials recommend adding 8 drops of bleach (about ¼ teaspoon) to each gallon of water. The water should be stirred and allowed to stand for at least 30 minutes before use.
- Water purification tablets may also be used by following the manufacturer's instructions.
- Potable water is available at the following locations: (*Provide locations where bottled water is available, and any special instructions*).

We will inform you when you no longer need to boil your water. To address this problem we are (*Briefly describe corrective actions*). We anticipate resolving the problem within (*estimate the time/date when the situation is likely to be resolved*).

For more information, please contact (*name of contact*) at (*phone number*) or (*mailing address*).

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by (system). State Water System ID#: \_\_\_\_\_.  
Date of Notice: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Confirmed Microbial Contamination - (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
(Community Waterworks)

By direct (hand) delivery on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_  
\_\_\_\_\_

Provided to the following broadcast media (list: television/radio/website/social media) on

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ (method and date)

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address



**FM-C14-T5-Attachment 2.** Elevated Turbidities at Filters.

**INSTRUCTIONS:** Field staff to use this template to finalize the State NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

### NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Elevated Turbidities at Filters

Dear Waterworks Owner:

This letter is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-395 A 2 b of the *Waterworks Regulations* (“Regulations”) due to occurrences of turbidity beyond acceptable limits at one or more granular media filters at the waterworks as observed on (give dates), and the likelihood of the presence of *E. coli* in the drinking water.

The Virginia Department of Health classifies this alleged violation as Tier 1 in accordance with Section 12VAC5-590-540 A 1 h of the Regulations, which includes in Tier 1, “Violation of the treatment technique requirements for filtration and disinfection resulting from a single exceedance of the maximum allowable turbidity limit, where the [Virginia Department of Health] determines after consultation that a Tier 1 notice is required.” (or Section 12VAC5-590-540 A 1 l, which includes in Tier 1, “...violations or situations with significant potential to have serious adverse effects on human health as a result of short-term exposure, as determined by the [State Health Commissioner] or [Virginia Department of Health] on a case-by-case basis.”)

In the case of a Tier 1 violation or situation, Section 12VAC5-590-540 C 1 a of the Regulations requires the waterworks owner to “[p]rovide a public notice as soon as practical but no later than 24 hours after the owner learns of the violation, exceedance, or situation.”

(Field staff may want to insert a narrative to further describe this situation and the need for emergency notification to the consumer. Narrative may include observations, sampling results, dates, times, etc. where appropriate.)

## **Required Actions**

The Waterworks Regulations characterize this as a Tier 1 violation or situation. Whenever a Tier 1 violation or situation occurs, public water supplies are required to initiate consultation with this office within 24 hours of learning of the violation or situation. According to our records, the required consultation took place during your conversation with *(insert name of field office contact)* at *(insert time)* on *(insert date)*. At that time, *(insert name of field office contact)* described the public notification requirements and faxed you a copy of this letter and a suggested “Public Notice” to be delivered to consumers served by this waterworks.

**Public Notice:** In accordance with Section 12VAC5-590-540 A 1 of the Regulations, you are required to issue a “Public Notice” (“Notice”) to the consumers. This Notice requires you to notify the consumers in the area served **within 24 hours** of learning of the violation, and it must be handled as follows:

- You must distribute the Notice to consumers no later than *(time)* on *(date)*. *special notice)*. This Notice advises your customers to **boil all tap water** used for consumption.

*(Note to ODW staff (then delete): If applicable, this date and time must be within 24 hours from the time the waterworks became aware of the violation. It will usually be 24 hours from the consultation date and time.)*

- The Notice must be distributed in a manner to reach all persons served by hand delivering the Notice to each household connection, posting at conspicuous locations throughout the area served by the waterworks, and/or appropriate broadcast media such as television, radio, social media, or website.
- As discussed with *(insert name of field office contact)*, you plan to take the following actions:
  - *(Field staff to list the required actions:)*
- *On a case-by-case basis, field staff may add any other public notification requirement as needed, and provide such details in this transmittal.)*
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved.)*
- You must repeat distribution of the Notice every three months, for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved.)*

**Draft Notice:** Attached is a draft Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate, and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for*

each corrective action; field staff to use checklist (FM-C14-Attachment Chart C) for tracking these situations.)

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at (phone number) or email at (email address).

Sincerely,

Name & Title

Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Public Notice
2. Certification Form

cc: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director.

**NOTICE TO CONSUMERS**  
**of the Name WATERWORKS w**  
**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**  
**BOIL YOUR TAP WATER**

**Failure to follow this advisory could result in stomach or intestinal illness.**

The Virginia Department of Health in conjunction with the (Local Health Department Name) Health Department, and (Name of waterworks) are advising residents to use boiled tap water or bottled water for drinking and cooking purposes as a safety precaution. This precaution is necessary because of occurrences of elevated turbidities beyond acceptable limits at one or more granular media filters at the waterworks as observed on (give dates), and the likelihood of the presence of *E. coli* in the drinking water. (Provide a brief explanation of problem. If the precipitating event involves confirmed fecal (E. coli) or turbidity violations, include/select the mandatory health effects below.)

*\*Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.\**

**DO NOT DRINK TAP WATER WITHOUT BOILING IT FIRST**

Boiled or bottled water should be used for drinking, beverage and food preparation, and making ice **until further notice**. Boiling kills bacteria and other organisms in the water. Boiling is the preferred method to assure that the tap water is safe to drink. Bring all tap water to a rolling boil, **let it boil for one minute**, and let it cool before using, or use bottled water.

If you cannot boil your tap water....

- An alternative method of purification for residents that do not have gas or electricity available is to use liquid household bleach to disinfect water. The bleach product should be recently purchased, free of additives and scents, and should contain a hypochlorite solution of at least 5.25%. Public health officials recommend adding 8 drops of bleach (about ¼ teaspoon) to each gallon of water. The water should be stirred and allowed to stand for at least 30 minutes before use.
- Water purification tablets may also be used by following the manufacturer's instructions.
- Potable water is available at the following locations: (Provide locations where bottled water is available, and any special instructions).

We will inform you when you no longer need to boil your water. To address this problem we are (Briefly describe corrective actions). We anticipate resolving the problem within (estimate the time/date when the situation is likely to be resolved).

For more information, please contact (name of contact) at (phone number) or (mailing address).

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**



This notice is being sent to you by (system). State Water System ID#: \_\_\_\_\_.  
Date of Notice: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Elevated Turbidities at Filters – (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
**(Community Waterworks)**

By direct (hand) delivery on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_  
\_\_\_\_\_

Provided to the following broadcast media (list: television/radio/website/social media) on

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ (method and date)

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address



**FM-C14-T5-Attachment 3.** Zero or Negative System Pressure at Waterworks.

**INSTRUCTIONS:** Field staff to use this template to finalize the State NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

### NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Zero or Negative System Pressure at Waterworks

Dear Waterworks Owner:

This letter is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-510 C of the *Waterworks Regulations* (“Regulations”) due to occurrences of zero and/or negative system pressure at the waterworks observed on (give dates), and the likelihood of the presence of *E. coli* in the drinking water.

The Virginia Department of Health classifies this alleged violation as Tier 1 in accordance with Section 12VAC5-590-540 A 1 l, which includes in Tier 1, “...violations or situations with significant potential to have serious adverse effects on human health as a result of short-term exposure, as determined by the [State Health Commissioner] or [Virginia Department of Health] on a case-by-case basis.”

In the case of a Tier 1 violation or situation, Section 12VAC5-590-540 C 1 a of the Regulations requires the waterworks owner to “[p]rovide a public notice as soon as practical but no later than 24 hours after the owner learns of the violation, exceedance, or situation.”

(Field staff may want to insert a narrative to further describe this situation and the need for emergency notification to the consumer. Narrative may include observations, sampling results, dates, times, etc. where appropriate.)

#### **Required Actions**

The Waterworks Regulations characterize this as a Tier 1 violation or situation. Whenever a Tier 1 violation or situation occurs, public water supplies are required, pursuant to 12VAC5-590-540 C 1 b of the Regulations, to initiate consultation with this office within 24 hours of learning of the violation or situation. According to our records, the required consultation took place during your conversation with (insert name of

*field office contact*) at *(insert time)* on *(insert date)*. At that time, *(insert name of field office contact)* described the public notification requirements, and faxed you a copy of this letter and a suggested “Public Notice” to be delivered to consumers served by this waterworks.

**Public Notice:** In accordance with Section 12VAC5-590-540 A 1 of the Regulations, you are required to issue a “Public Notice” (“Notice”) to the consumers. This Notice requires you to notify the consumers in the area served **within 24 hours** of learning of the violation, and it must be handled as follows:

- You must distribute the Notice to consumers no later than *(time)* on *(date)*. This Notice advises your customers to **boil all tap water** used for consumption.

*(Note to ODW staff (then delete): If applicable, this date and time must be within 24 hours from the time the waterworks became aware of the violation. It will usually be 24 hours from the consultation date and time.)*

- The Notice must be distributed in a manner to reach all persons served by hand delivering the Notice to each household connection, posting at conspicuous locations throughout the area served by the waterworks, and/or appropriate broadcast media such as television, radio, social media, or website.
- As discussed with *(insert name of field office contact)*, you plan to take the following actions:
- *(Field staff to list the required actions:)*
- *On a case-by-case basis, field staff may add any other public notification requirement as needed, and provide such details in this transmittal.*
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved.)*
- You must repeat distribution of the Notice every three months, for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved.)*

**Draft Notice:** Attached is a draft Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action; field staff to use checklist (FM-C14-Attachment Chart C) for tracking these situations.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions

include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at (phone number) or email at (email address).

Sincerely,

Name & Title  
Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Public Notice
2. Certification Form

ec: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director. Administrator/Manager, name of County, County

**NOTICE TO CONSUMERS**  
**of the Name WATERWORKS**  
**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**BOIL YOUR TAP WATER**

**Failure to follow this advisory could result in stomach or intestinal illness.**

The Virginia Department of Health in conjunction with the (Local Health Department Name) Health Department, and (Name of waterworks) are advising residents to use boiled tap water or bottled water for drinking and cooking purposes as a safety precaution. This precaution is necessary because of the occurrences of zero and/or negative system pressure at the waterworks observed on (give dates), and the likelihood of the presence of *E. coli* in the drinking water. (Provide a brief explanation of problem. If the precipitating event involves confirmed fecal (E. coli) or turbidity violations, include/select the mandatory health effects below.)

*\*E. coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Human pathogens in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a greater health risk for infants, young children, the elderly, and people with severely-compromised immune systems.\**

**DO NOT DRINK TAP WATER WITHOUT BOILING IT FIRST**

Boiled or bottled water should be used for drinking, beverage and food preparation, and making ice **until further notice**. Boiling kills bacteria and other organisms in the water. Boiling is the preferred method to assure that the tap water is safe to drink. Bring all tap water to a rolling boil, **let it boil for one minute**, and let it cool before using, or use bottled water.

If you cannot boil your tap water...

- An alternative method of purification for residents that do not have gas or electricity available is to use liquid household bleach to disinfect water. The bleach product should be recently purchased, free of additives and scents, and should contain a hypochlorite solution of at least 5.25%. Public health officials recommend adding 8 drops of bleach (about ¼ teaspoon) to each gallon of water. The water should be stirred and allowed to stand for at least 30 minutes before use.
- Water purification tablets may also be used by following the manufacturer's instructions.
- Potable water is available at the following locations: (Provide locations where bottled water is available, and any special instructions).

We will inform you when you no longer need to boil your water. To address this problem we are (Briefly describe corrective actions). We anticipate resolving the problem within (estimate the time/date when the situation is likely to be resolved).

For more information, please contact (name of contact) at (phone number) or (mailing address).

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by *(system)*. State Water System ID#: \_\_\_\_\_.  
Date of Notice: \_\_\_\_\_.



SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Zero or Negative System Pressure at Waterworks – (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
**(Community Waterworks)**

By direct (hand) delivery on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_  
\_\_\_\_\_

Provided to the following broadcast media (list: television/radio/website/social media) on

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ (method and date)

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address



**FM-C14-T4-Attachment 4.** Low System Pressure at Waterworks.

**INSTRUCTIONS:** Field staff to use this template to finalize the State NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined, and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

### NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Low System Pressure at Waterworks

Dear Waterworks Owner:

This letter is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-510 C of the *Waterworks Regulations* (“Regulations”) due to occurrences of low system pressure noted on (give dates) and the likelihood of the presence of *E. coli* in the drinking water.

The Virginia Department of Health classifies this alleged violation as Tier 1 in accordance with Section 12VAC5-590-540 A 1 l, which includes in Tier 1, “...violations or situations with significant potential to have serious adverse effects on human health as a result of short-term exposure, as determined by the [State Health Commissioner] or [Virginia Department of Health] on a case-by-case basis.”

In the case of a Tier 1 violation or situation, Section 12VAC5-590-540 C 1 a of the Regulations requires the waterworks owner to “[p]rovide a public notice as soon as practical but not later than 24 hours after the owner learns of the violation, exceedance, or situation.”

(Field staff may want to insert a narrative to further describe this situation and the need for emergency notification to the consumer. Narrative may include observations, sampling results, dates, times, etc. where appropriate.)

#### **Required Actions**

The Waterworks Regulations characterize this as a Tier 1 violation or situation. Whenever a Tier 1 violation or situation occurs, public water supplies are required, pursuant to 12VAC5-590-540 C 1 b of the Regulations, to initiate consultation with this office within 24 hours of learning of the violation or situation. According to our records, the required consultation took place during your conversation with (insert name of

*field office contact*) at *(insert time)* on *(insert date)*. At that time, *(insert name of field office contact)* described the public notification requirements, and faxed you a copy of this letter and a suggested “Public Notice” to be delivered to consumers served by this waterworks.

**Public Notice:** In accordance with Section 12VAC5-590-540 A 1 of the Regulations, you are required to issue a “Public Notice” (“Notice”) to the consumers. This Notice requires you to notify the consumers in the area served **within 24 hours** of learning of the violation, and it must be handled as follows:

- You must distribute the Notice to consumers no later than *(time)* on *(date)*. This Notice advises your customers to **boil all tap water** used for consumption.

*(Note to ODW staff (then delete): If applicable, this date and time must be within 24 hours from the time the waterworks became aware of the violation. It will usually be 24 hours from the consultation date and time.)*

- The Notice must be distributed in a manner to reach all persons served by hand delivering the Notice to each household connection, posting at conspicuous locations throughout the area served by the waterworks, and/or appropriate broadcast media such as television, radio, social media, or website.
- As discussed with *(insert name of field office contact)*, you plan to take the following actions:
  - *(Field staff to list the required actions:)*
- *On a case-by-case basis, field staff may add any other public notification requirement as needed, and provide such details in this transmittal.*
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved.)*
- You must repeat distribution of the Notice every three months, for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved.)*

**Draft Notice:** Attached is a draft Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action; field staff to use checklist (FM-C14-Attachment Chart C) for tracking these situations.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at (phone number) or email at (email address).

Sincerely,

Name & Title

Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Public Notice
2. Certification Form

ec: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director. Administrator/Manager, name of County, County

**NOTICE TO CONSUMERS**  
**of the Name WATERWORKS**  
**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**BOIL YOUR TAP WATER**

**Failure to follow this advisory could result in stomach or intestinal illness.**

The Virginia Department of Health in conjunction with the (Local Health Department Name) Health Department, and (Name of waterworks) are advising residents to use boiled tap water or bottled water for drinking and cooking purposes as a safety precaution. This precaution is necessary because of the occurrences of low system pressure at the waterworks, and the likelihood of the presence of *E. coli* in the drinking water. (Provide a brief explanation of problem. If the precipitating event involves confirmed fecal (E.coli) or turbidity violations, include/select the mandatory health effects below.)

*\*E. coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Human pathogens in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a greater health risk for infants, young children, the elderly, and people with severely-compromised immune systems.\**

**DO NOT DRINK TAP WATER WITHOUT BOILING IT FIRST**

Boiled or bottled water should be used for drinking, beverage and food preparation, and making ice **until further notice**. Boiling kills bacteria and other organisms in the water. Boiling is the preferred method to assure that the tap water is safe to drink. Bring all tap water to a rolling boil, **let it boil for one minute**, and let it cool before using, or use bottled water.

If you cannot boil your tap water....

- An alternative method of purification for residents that do not have gas or electricity available is to use liquid household bleach to disinfect water. The bleach product should be recently purchased, free of additives and scents, and should contain a hypochlorite solution of at least 5.25%. Public health officials recommend adding 8 drops of bleach (about ¼ teaspoon) to each gallon of water. The water should be stirred and allowed to stand for at least 30 minutes before use.
- Water purification tablets may also be used by following the manufacturer's instructions.
- Potable water is available at the following locations: (Provide locations where bottled water is available, and any special instructions).

We will inform you when you no longer need to boil your water. To address this problem we are (Briefly describe corrective actions). We anticipate resolving the problem within (estimate the time/date when the situation is likely to be resolved).

For more information, please contact (name of contact) at (phone number) or (mailing address).

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by (system). State Water System ID#: \_\_\_\_\_.

Date of Notice: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Low System Pressure Occurrences at Waterworks – (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
**(Community Waterworks)**

By direct (hand) delivery on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_  
\_\_\_\_\_

Provided to the following broadcast media (list: television/radio/website/social media) on

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ (method and date)

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address





**FM-C14-T5-Attachment 5.** Major Water Main Breaks and/or Service Interruptions.

**INSTRUCTIONS:** Field staff to use this template to finalize the State NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

### NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Major Water Main Breaks and/or Service Interruptions

Dear Waterworks Owner:

This letter is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-510 C of the *Waterworks Regulations* (“Regulations”) due to major water main breaks and service interruptions that occurred on (give date(s)), and the likelihood of the presence of *E. coli* and turbidity resulting from infiltration into the distribution system.

The Virginia Department of Health classifies this alleged violation as Tier 1 in accordance with Section 12VAC5-590-540 A 1 1 of the Regulations, which includes in Tier 1, “...violations or situations with significant potential to have serious adverse effects on human health as a result of short-term exposure, as determined by the [State Health Commissioner] or [Virginia Department of Health] on a case-by-case basis.”

In the case of a Tier 1 violation or situation, Section 12VAC5-590-540 C 1 a of the Regulations requires the waterworks owner to “[p]rovide a public notice as soon as practical but no later than 24 hours after the owner learns of the violation, exceedance, or situation.”

(Field staff may want to insert a narrative to further describe this situation and the need for emergency notification to the consumer. Narrative may include observations, sampling results, dates, times, etc. where appropriate.)

#### **Required Actions**

The Waterworks Regulations characterize this as a Tier 1 violation or situation. Whenever a Tier 1 violation or situation occurs, public water supplies are required, pursuant to 12VAC5-590-540 C 1 b of the Regulations, to initiate consultation with this office within 24 hours of learning of the violation or situation.

According to our records, the required consultation took place during your conversation with *(insert name of field office contact)* at *(insert time)* on *(insert date)*. At that time, *(insert name of field office contact)* described the public notification requirements, and faxed you a copy of this letter and a suggested “Public Notice” to be delivered to consumers served by this waterworks.

**Public Notice:** In accordance with Section 12VAC5-590-540 A 1 of the Regulations, you are required to issue a “Public Notice” (“Notice”) to the consumers. This Notice requires you to notify the consumers in the area served **within 24 hours** of learning of the violation, and it must be handled as follows:

- You must distribute the Notice to consumers no later than *(time)* on *(date)*. This Notice advises your customers to **boil all tap water** used for consumption.

*(Note to ODW staff (then delete): If applicable, this date and time must be within 24 hours from the time the waterworks became aware of the violation. It will usually be 24 hours from the consultation date and time.)*

- The Notice must be distributed in a manner to reach all persons served by hand delivering the Notice to each household connection, posting at conspicuous locations throughout the area served by the waterworks, and/or appropriate broadcast media such as television, radio, social media, or website.
- As discussed with *(insert name of field office contact)*, you plan to take the following actions:
  - *(Field staff to list the required actions:)*
- *On a case-by-case basis, field staff may add any other public notification requirement as needed, and provide such details in this transmittal.)*
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved.)*
- You must repeat distribution of the Notice every three months, for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved.)*

**Draft Notice:** Attached is a draft Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action; field staff to use checklist (FM-C14-Attachment Chart C) for tracking these situations.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at (phone number) or email at (email address).

Sincerely,

Name & Title  
Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Public Notice
2. Certification Form

ec: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director. Administrator/Manager, name of County, County

**NOTICE TO CONSUMERS**  
**of the Name WATERWORKS**  
**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**BOIL YOUR TAP WATER**

**Failure to follow this advisory could result in stomach or intestinal illness.**

The Virginia Department of Health in conjunction with the (Local Health Department Name) Health Department, and (Name of waterworks) are advising residents to use boiled tap water or bottled water for drinking and cooking purposes as a safety precaution. This precaution is necessary due major water main breaks/interruptions that occurred on (give date(s)), and the likelihood of the presence of *E. coli* and turbidity resulting from infiltration into the distribution system. (Provide a brief explanation of problem. If the precipitating event involves confirmed fecal (E. coli) or turbidity violations, include/select the mandatory health effects below.)

*\*E. coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Human pathogens in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a greater health risk for infants, young children, the elderly, and people with severely-compromised immune systems.\**

*\*Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.\**

**DO NOT DRINK TAP WATER WITHOUT BOILING IT FIRST**

Boiled or bottled water should be used for drinking, beverage and food preparation, and making ice **until further notice**. Boiling kills bacteria and other organisms in the water. Boiling is the preferred method to assure that the tap water is safe to drink. Bring all tap water to a rolling boil, **let it boil for one minute**, and let it cool before using, or use bottled water.

If you cannot boil your tap water....

- An alternative method of purification for residents that do not have gas or electricity available is to use liquid household bleach to disinfect water. The bleach product should be recently purchased, free of additives and scents, and should contain a hypochlorite solution of at least 5.25%. Public health officials recommend adding 8 drops of bleach (about ¼ teaspoon) to each gallon of water. The water should be stirred and allowed to stand for at least 30 minutes before use.
- Water purification tablets may also be used by following the manufacturer's instructions.
- Potable water is available at the following locations: (Provide locations where bottled water is available, and any special instructions).

We will inform you when you no longer need to boil your water. To address this problem we are (Briefly describe corrective actions). We anticipate resolving the problem within (estimate the time/date when the situation is likely to be resolved).

For more information, please contact (name of contact) at (phone number) or (mailing address).

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by (system). State Water System ID#: \_\_\_\_\_.  
Date of Notice: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Major Water Main Breaks and/or Service Interruptions - (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
**(Community Waterworks)**

By direct (hand) delivery on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_  
\_\_\_\_\_

Provided to the following broadcast media (list: television/radio/website/social media) on

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ (method and date)

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address

### FM-C14-Attachment Chart C: Checklist for Field Offices

Subject: \_\_\_\_\_  
 Waterworks: \_\_\_\_\_  
 PWSID: \_\_\_\_\_

Prepared by: \_\_\_\_\_  
 Date: \_\_\_\_\_

Brief description of problem	
Notice type	<input checked="" type="checkbox"/> Boil <input type="checkbox"/> Do Not Drink <input type="checkbox"/> Do Not Use
VDH Internal Consultation	<input type="checkbox"/> Director, ODW                      Date: _____ Time: _____ <input type="checkbox"/> Local Health Director - or -                      Date: _____ Time: _____ Environmental Health Manager _____ <small>Name</small>
Discussion with waterworks owner or representative	Contact Name _____ Date: _____ Time: _____ Notice distribution deadline: Date: _____ Time: _____ Distribution methods to be used: <input type="checkbox"/> Posting <input type="checkbox"/> Hand delivery <input type="checkbox"/> Broadcast media <input type="checkbox"/> R-911 If broadcast media or reverse 911 used, message points discussed: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA Other means to reach all persons served: _____ Estimated duration of problem: _____ Corrective actions discussed (describe) _____ Certification of notice distribution due date: _____ Other topics discussed: _____
Materials provided to owner or representative	<input type="checkbox"/> Model notice <input type="checkbox"/> Model notice Spanish version <input type="checkbox"/> Boil water FAQs for Consumers <input type="checkbox"/> Model advisory lifted notice <input type="checkbox"/> Notice distribution certification form <input type="checkbox"/> Other (specify) _____
Materials delivered to owner or representative via...	<input type="checkbox"/> Fax <input type="checkbox"/> Email <input type="checkbox"/> Owner pick up <input type="checkbox"/> Delivered to owner by ODW staff <input type="checkbox"/> Other (specify) _____
NOAV Issued <small>(confirmed contamination events only)</small>	NOAV date: _____ <input type="checkbox"/> Enforcement Action logged in SDWIS
Media Alert	<input type="checkbox"/> Not required <input type="checkbox"/> Sent to Central Office      _____ (date)
Comments	



**FM-C14-T5-Attachment 6. Flooding of Wells.**

**INSTRUCTIONS:** Field staff to use this template to finalize the State NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

**NOTICE OF ALLEGED VIOLATION**

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Flooding of Wells

Dear Waterworks Owner:

This letter is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-360 A of the *Waterworks Regulations* (“Regulations”) due to the flooding of the well(s). (Field staff may want to add further clarification details on the cause(s) of this situation as appropriate.)

The Virginia Department of Health classifies this alleged violation as Tier 1 in accordance with Section 12VAC5-590-540 A 1 1 of the Regulations, which includes in Tier 1, “...violations or situations with significant potential to have serious adverse effects on human health as a result of short-term exposure, as determined by the [State Health Commissioner] or [Virginia Department of Health] on a case-by-case basis.”

In the case of a Tier 1 violation or situation, Section 12VAC5-590-540 C 1 a of the Regulations requires the waterworks owner to “[p]rovide a public notice as soon as practical but no later than 24 hours after the owner learns of the violation, exceedance, or situation.”

(Field staff may want to insert a narrative to further describe this situation and the need for emergency notification to the consumer. Narrative may include observations, sampling results, dates, times, etc. where appropriate.)

**Required Actions**

The Waterworks Regulations characterize this as a Tier 1 violation or situation. Whenever a Tier 1 violation or situation occurs, public water supplies are required, pursuant to 12VAC5-590-540 C 1 b of the Regulations, to initiate consultation with this office within 24 hours of learning of the violation or situation.

According to our records, the required consultation took place during your conversation with *(insert name of field office contact)* at *(insert time)* on *(insert date)*. At that time, *(insert name of field office contact)* described the public notification requirements, and faxed you a copy of this letter and a suggested “Public Notice” to be delivered to consumers served by this waterworks.

**Public Notice:** In accordance with Section 12VAC5-590-540 A 1 of the Regulations, you are required to issue a “Public Notice” (“Notice”) to the consumers. This Notice requires you to notify the consumers in the area served **within 24 hours** of learning of the violation, and it must be handled as follows:

- You must distribute the Notice to consumers no later than *(time)* on *(date)*. This Notice advises your customers to **boil all tap water** used for consumption.

*(Note to ODW staff (then delete): If applicable, this date and time must be within 24 hours from the time the waterworks became aware of the violation. It will usually be 24 hours from the consultation date and time.)*

- The Notice must be distributed in a manner to reach all persons served by hand delivering the Notice to each household connection, posting at conspicuous locations throughout the area served by the waterworks, and/or appropriate broadcast media such as television, radio, social media, or website.
- As discussed with *(insert name of field office contact)*, you plan to take the following actions:
  - *(Field staff to list the required actions:)*
- *On a case-by-case basis, field staff may add any other public notification requirement as needed, and provide such details in this transmittal.)*
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved.)*
- You must repeat distribution of the Notice every three months, for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved.)*

**Draft Notice:** Attached is a draft Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action; field staff to use checklist (FM-C14-Attachment Chart C) for tracking these situations.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at (phone number) or email at (email address).

Sincerely,

Name & Title  
Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Public Notice
2. Certification Form

ec: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director. Administrator/Manager, name of County, County

**NOTICE TO CONSUMERS**  
**of the Name WATERWORKS**  
**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**BOIL YOUR TAP WATER**

**Failure to follow this advisory could result in stomach or intestinal illness.**

The Virginia Department of Health in conjunction with the *(name of Local Health Department)*, and *(Name of waterworks)* are advising residents to use boiled tap water or bottled water for drinking and cooking purposes as a safety precaution. This precaution is necessary because *(Provide a brief explanation of problem. If the precipitating event involves confirmed fecal (E. coli) or turbidity violations, include/select the mandatory health effects below.*

*\*E. coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Human pathogens in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a greater health risk for infants, young children, the elderly, and people with severely-compromised immune systems.\**

*\*Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.\**

**DO NOT DRINK TAP WATER WITHOUT BOILING IT FIRST**

Boiled or bottled water should be used for drinking, beverage and food preparation, and making ice **until further notice**. Boiling kills bacteria and other organisms in the water. Boiling is the preferred method to assure that the tap water is safe to drink. Bring all tap water to a rolling boil, **let it boil for one minute**, and let it cool before using, or use bottled water.

If you cannot boil your tap water....

- An alternative method of purification for residents that do not have gas or electricity available is to use liquid household bleach to disinfect water. The bleach product should be recently purchased, free of additives and scents, and should contain a hypochlorite solution of at least 5.25%. Public health officials recommend adding 8 drops of bleach (about ¼ teaspoon) to each gallon of water. The water should be stirred and allowed to stand for at least 30 minutes before use.
- Water purification tablets may also be used by following the manufacturer's instructions.
- Potable water is available at the following locations: *(Provide locations where bottled water is available, and any special instructions).*

We will inform you when you no longer need to boil your water. To address this problem, we are *(Briefly describe corrective actions)*. We anticipate resolving the problem within *(estimate the time/date when the situation is likely to be resolved)*.

For more information, please contact *(name of contact)* at *(phone number)* or *(mailing address)*.

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by (system). State Water System ID#: \_\_\_\_\_.

Date of Notice: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Flooding of Wells – (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
**(Community Waterworks)**

By direct (hand) delivery on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_  
\_\_\_\_\_

Provided to the following broadcast media (list: television/radio/website/social media) on

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ (method and date)

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address

### FM-C14-Attachment Chart C: Checklist for Field Offices

Subject: \_\_\_\_\_  
 Waterworks: \_\_\_\_\_  
 PWSID: \_\_\_\_\_

Prepared by: \_\_\_\_\_  
 Date: \_\_\_\_\_

Brief description of problem	
Notice type	<input checked="" type="checkbox"/> Boil <input type="checkbox"/> Do Not Drink <input type="checkbox"/> Do Not Use
VDH Internal Consultation	<input type="checkbox"/> Director, ODW      Date: _____ Time: _____ <input type="checkbox"/> Local Health Director - or - Environmental Health Manager _____ <small>Name</small>
Discussion with waterworks owner or representative	_____ Contact Name Date: _____ Time: _____ Notice distribution deadline: Date: _____ Time: _____ Distribution methods to be used: <input type="checkbox"/> Posting <input type="checkbox"/> Hand delivery <input type="checkbox"/> Broadcast media <input type="checkbox"/> R-911 If broadcast media or reverse 911 used, message points discussed: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA Other means to reach all persons served: _____ Estimated duration of problem: _____ Corrective actions discussed (describe) _____ Certification of notice distribution due date: _____ Other topics discussed: _____
Materials provided to owner or representative	<input type="checkbox"/> Model notice <input type="checkbox"/> Model notice Spanish version <input type="checkbox"/> Boil water FAQs for Consumers <input type="checkbox"/> Model advisory lifted notice <input type="checkbox"/> Notice distribution certification form <input type="checkbox"/> Other (specify) _____
Materials delivered to owner or representative via...	<input type="checkbox"/> Fax <input type="checkbox"/> Email <input type="checkbox"/> Owner pick up <input type="checkbox"/> Delivered to owner by ODW staff <input type="checkbox"/> Other (specify) _____
NOAV Issued <small>(confirmed contamination events only)</small>	NOAV date: _____ <input type="checkbox"/> Enforcement Action logged in SDWIS
Media Alert	<input type="checkbox"/> Not required <input type="checkbox"/> Sent to Central Office    _____ (date)
Comments	

**FM-C14-T5-Attachment 7.** Groundwater Source Determined to be GUDI.

**INSTRUCTIONS:** Field staff to use this template to finalize the State NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined, and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

### NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner

Address 1

Address 2

City, State, Zip

Re: Groundwater Source Determined to be Under the Influence of Surface Water (GUDI)

Dear Waterworks Owner:

This letter is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-395 A of the *Waterworks Regulations* (“Regulations”) due to the definitive determination of a groundwater source on (give date) as being under the direct influence of surface water (GUDI), and the likelihood of the presence of *E. coli* and turbidity in the drinking water and failure to provide required filtration and disinfection treatment as required in the surface water and GUDI source treatment technique.

The Virginia Department of Health classifies this alleged violation as Tier 1 in accordance with Section 12VAC5-590-540 A 1 1 of the Regulations, which includes in Tier 1, “...violations or situations with significant potential to have serious adverse effects on human health as a result of short-term exposure, as determined by the [State Health Commissioner] or [Virginia Department of Health] on a case-by-case basis.”

In the case of a Tier 1 violation or situation, Section 12VAC5-590-540 C 1 a of the Regulations requires the waterworks owner to “[p]rovide a public notice as soon as practical but no later than 24 hours after the owner learns of the violation, exceedance, or situation.”

(Field staff may want to insert a narrative to further describe this situation and the need for emergency notification to the consumer. Narrative may include observations, sampling results, dates, times, etc. where appropriate.)

#### **Required Actions**

The Waterworks Regulations characterize this as a Tier 1 violation or situation. Whenever a Tier 1 violation



or situation occurs, pursuant to 12VAC5-590-540 C 1 b of the Regulations, waterworks are required to initiate consultation with this office within 24 hours of learning of the violation or situation. According to our records, the required consultation took place during your conversation with *(insert name of field office contact)* at *(insert time)* on *(insert date)*. At that time, *(insert name of field office contact)* described the public notification requirements, and faxed you a copy of this letter and a suggested “Public Notice” to be delivered to consumers served by this waterworks.

**Public Notice:** In accordance with Section 12VAC5-590-540 A 1 of the Regulations, you are required to issue a “Public Notice” (“Notice”) to the consumers. This Notice requires you to notify the consumers in the area served **within 24 hours** of learning of the violation, and it must be handled as follows:

- You must distribute the Notice to consumers no later than *(time)* on *(date)*. This Notice advises your customers to **boil all tap water** used for consumption.

*(Note to ODW staff (then delete): If applicable, this date and time must be within 24 hours from the time the waterworks became aware of the violation. It will usually be 24 hours from the consultation date and time.)*

- The Notice must be distributed in a manner to reach all persons served by hand delivering the Notice to each household connection, posting at conspicuous locations throughout the area served by the waterworks, and/or appropriate broadcast media such as television, radio, social media, or website.
- As discussed with *(insert name of field office contact)*, you plan to take the following actions:
  - *(Field staff to list the required actions:)*
- On a case-by-case basis, field staff may add any other public notification requirement as needed, and provide such details in this transmittal.
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved.)*
- You must repeat distribution of the Notice every three months, for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved.)*

**Draft Notice:** Attached is a draft Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action; field staff to use checklist (FM-C14-Attachment Chart C) for tracking these situations.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at (phone number) or email at (email address).

Sincerely,

Name & Title  
Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Public Notice
2. Certification Form

ec: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director. Administrator/Manager, name of County, County

**NOTICE TO CONSUMERS**  
**of the Name WATERWORKS**  
**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**BOIL YOUR TAP WATER**

**Failure to follow this advisory could result in stomach or intestinal illness.**

The Virginia Department of Health in conjunction with the (Local Health Department Name) Health Department, and (Name of waterworks) are advising residents to use boiled tap water or bottled water for drinking and cooking purposes as a safety precaution. This precaution is necessary due to the definitive determination of a groundwater source on (give date) as being under the direct influence of surface water, and the likelihood of the presence of *E. coli* and turbidity in the drinking water. (Provide a brief explanation of problem. If the precipitating event involves confirmed fecal (E. coli) or turbidity violations, include/select the mandatory health effects below.)

*\*E. coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Human pathogens in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a greater health risk for infants, young children, the elderly, and people with severely-compromised immune systems.\**

*\*Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.\**

**DO NOT DRINK TAP WATER WITHOUT BOILING IT FIRST**

Boiled or bottled water should be used for drinking, beverage and food preparation, and making ice **until further notice**. Boiling kills bacteria and other organisms in the water. Boiling is the preferred method to assure that the tap water is safe to drink. Bring all tap water to a rolling boil, **let it boil for one minute**, and let it cool before using, or use bottled water.

If you cannot boil your tap water....

- An alternative method of purification for residents that do not have gas or electricity available is to use liquid household bleach to disinfect water. The bleach product should be recently purchased, free of additives and scents, and should contain a hypochlorite solution of at least 5.25%. Public health officials recommend adding 8 drops of bleach (about ¼ teaspoon) to each gallon of water. The water should be stirred and allowed to stand for at least 30 minutes before use.
- Water purification tablets may also be used by following the manufacturer's instructions.
- Potable water is available at the following locations: (Provide locations where bottled water is available, and any special instructions).

We will inform you when you no longer need to boil your water. To address this problem we are (Briefly describe corrective actions). We anticipate resolving the problem within (estimate the time/date when the situation is likely to be resolved).

For more information, please contact (name of contact) at (phone number) or (mailing address).

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by (system). State Water System ID#: \_\_\_\_\_.  
Date of Notice: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Groundwater Source Determined to be GUDI – (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
**(Community Waterworks)**

By direct (hand) delivery on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_  
\_\_\_\_\_

Provided to the following broadcast media (list: television/radio/website/social media) on

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ (method and date)

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address



**FM-C14-T5-Attachment 8.** Sources under Step 3 GUDI Evaluation.

**INSTRUCTIONS:** Field staff to use this template to finalize the State NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

### NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Sources under Step 3 GUDI Evaluation Require At Least a 4-Log Inactivation of Viruses

Dear Waterworks Owner:

This letter is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-430 C of the *Waterworks Regulations* (“Regulations”) for failing to provide disinfection treatment to achieve at least 4-log inaction of viruses and conduct compliance monitoring while a source is undergoing Step 3 evaluations pursuant to Section 12VAC5-590-430 B 3 of the Regulations.

Section 12VAC5-590-430 C of the Regulations states, in part, “If the source is subject to the requirements of subdivision B 3 of this section, then the owner shall perform the following interim measures until the [Virginia Department of Health] has made a final [groundwater under the direct influence of surface water] determination: 1. Provide disinfection treatment to achieve a 4-log inactivation of virus in accordance with 12VAC5-590-421 A 1 d; [and] 2. Conduct compliance monitoring in accordance with 12VAC5-590-421 C 1...”

The Virginia Department of Health classifies this alleged violation as Tier 1 in accordance with Section 12VAC5-590-540 A 1 l of the Regulations, which includes in Tier 1, “...violations or situations with significant potential to have serious adverse effects on human health as a result of short-term exposure, as determined by the [State Health Commissioner] or [Virginia Department of Health] on a case-by-case basis.”

In the case of a Tier 1 violation or situation, Section 12VAC5-590-540 C 1 a of the Regulations requires the waterworks owner to “[p]rovide a public notice as soon as practical but no later than 24 hours after the owner learns of the violation, exceedance, or situation.”

(Field staff may want to insert a narrative to further describe this situation and the need for emergency notification to the consumer. Narrative may include observations, sampling results, dates, times, etc. where

*appropriate.)*

### **Required Actions**

The Waterworks Regulations characterize this as a Tier 1 violation or situation. Whenever a Tier 1 violation or situation occurs, public water supplies are required, pursuant to 12VAC5-590-540 C 1 b of the Regulations, to initiate consultation with this office within 24 hours of learning of the violation or situation. According to our records, the required consultation took place during your conversation with *(insert name of field office contact)* at *(insert time)* on *(insert date)*. At that time, *(insert name of field office contact)* described the public notification requirements, and faxed you a copy of this letter and a suggested “Public Notice” to be delivered to consumers served by this waterworks.

**Public Notice:** In accordance with Section 12VAC5-590-540 A 1 of the Regulations, you are required to issue a “Public Notice” (“Notice”) to the consumers. This Notice requires you to notify the consumers in the area served **within 24 hours** of learning of the violation, and it must be handled as follows:

- You must distribute the Notice to consumers no later than *(time)* on *(date)*. This Notice advises your customers to **boil all tap water** used for consumption.

*(Note to ODW staff (then delete): If applicable, this date and time must be within 24 hours from the time the waterworks became aware of the violation. It will usually be 24 hours from the consultation date and time.)*

- The Notice must be distributed in a manner to reach all persons served by hand delivering the Notice to each household connection, posting at conspicuous locations throughout the area served by the waterworks, and/or appropriate broadcast media such as television, radio, social media, or website.
- As discussed with *(insert name of field office contact)*, you plan to take the following actions:
  - *(Field staff to list the required actions:)*
- *On a case-by-case basis, field staff may add any other public notification requirement as needed, and provide such details in this transmittal.)*
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved.)*
- You must repeat distribution of the Notice every three months, for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved.)*

**Draft Notice:** Attached is a draft Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.



**Follow-Up Actions:** (Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action; field staff to use checklist (FM-C14-Attachment Chart C) for tracking these situations.)

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at (phone number) or email at (email address).

Sincerely,

Name & Title  
Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Public Notice
2. Certification Form

cc: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director. Administrator/Manager, name of County, County

**NOTICE TO CONSUMERS**  
**of the Name WATERWORKS**  
**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**BOIL YOUR TAP WATER**

**Failure to follow this advisory could result in stomach or intestinal illness.**

The Virginia Department of Health in conjunction with the (Local Health Department Name) Health Department, and (Name of waterworks) are advising residents to use boiled tap water or bottled water for drinking and cooking purposes as a safety precaution. This precaution is necessary while we evaluate whether a groundwater source is under the direct influence of surface water, and the possible presence of *E. coli* and turbidity in the drinking water. (Provide a brief explanation of problem. If the precipitating event involves confirmed fecal (*E. coli*) or turbidity violations, include/select the mandatory health effects below.)

*\*E. coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Human pathogens in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a greater health risk for infants, young children, the elderly, and people with severely-compromised immune systems.\**

*\*Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.\**

**DO NOT DRINK TAP WATER WITHOUT BOILING IT FIRST**

Boiled or bottled water should be used for drinking, beverage and food preparation, and making ice **until further notice**. Boiling kills bacteria and other organisms in the water. Boiling is the preferred method to assure that the tap water is safe to drink. Bring all tap water to a rolling boil, **let it boil for one minute**, and let it cool before using, or use bottled water.

If you cannot boil your tap water....

- An alternative method of purification for residents that do not have gas or electricity available is to use liquid household bleach to disinfect water. The bleach product should be recently purchased, free of additives and scents, and should contain a hypochlorite solution of at least 5.25%. Public health officials recommend adding 8 drops of bleach (about ¼ teaspoon) to each gallon of water. The water should be stirred and allowed to stand for at least 30 minutes before use.
- Water purification tablets may also be used by following the manufacturer's instructions.
- Potable water is available at the following locations: (Provide locations where bottled water is available, and any special instructions).

We will inform you when you no longer need to boil your water. To address this problem we are (Briefly describe corrective actions). We anticipate resolving the problem within (estimate the time/date when the situation is likely to be resolved).

For more information, please contact (name of contact) at (phone number) or (mailing address).

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by (system). State Water System ID#: \_\_\_\_\_.

Date of Notice: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: GUDI Source Requiring at Least a 4-Log Inactivation of Viruses– (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
*(Community Waterworks)*

By direct (hand) delivery on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_

Provided to the following broadcast media *(list: television/radio/website/social media)* on

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ *(method and date)*

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address



**FM-C14-T5-Attachment 9.** Known Harmful Chemical Substance(s) Suspected in Drinking Water.  
**INSTRUCTIONS:** Field staff to use this template to finalize the State NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

### NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Known Harmful Chemical Substance(s) Suspected in Drinking Water

Dear Waterworks Owner:

This letter is to advise that you appear to be operating a waterworks in violation of the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-360 A of the *Waterworks Regulations* (“Regulations”), due to contamination from a chemical substance known to be harmful if ingested (e.g. contamination from chemical spill).

Section 12VAC5-590-360 A states, in part, “The owner shall provide and maintain conditions throughout the entirety of the waterworks in a manner that will assure a high degree of capability and reliability....”

The Virginia Department of Health classifies this alleged violation as Tier 1 in accordance with Section 12VAC5-590-540 A 1 1 of the Regulations, which includes in Tier 1, “...violations or situations with significant potential to have serious adverse effects on human health as a result of short-term exposure, as determined by the [State Health Commissioner] or [Virginia Department of Health] on a case-by-case basis.”

In the case of a Tier 1 violation or situation, Section 12VAC5-590-540 C 1 a of the Regulations requires the waterworks owner to “[p]rovide a public notice as soon as practical but no later than 24 hours after the owner learns of the violation, exceedance, or situation.”

(Field staff may want to insert a narrative to further describe this situation and the need for emergency notification to the consumer. Narrative may include observations, sampling results, dates, times, etc. where appropriate.)

## **Required Actions**

The Waterworks Regulations characterize this as a Tier 1 violation or situation. Whenever a Tier 1 violation or situation occurs, pursuant to 12VAC5-590-540 C 1 b of the Regulations, waterworks are required to initiate consultation with this office within 24 hours of learning of the violation or situation. According to our records, the required consultation took place during your conversation with *(insert name of field office contact)* at *(insert time)* on *(insert date)*. At that time, *(insert name of field office contact)* described the public notification requirements, and faxed you a copy of this letter and a suggested “Public Notice” to be delivered to consumers served by this waterworks.

**Public Notice:** In accordance with Section 12VAC5-590-540 A 1 of the Regulations, you are required to issue an “Public Notice” (“Notice”) to the consumers. This Notice requires you to notify the consumers in the area served **within 24 hours** of learning of the violation, and it must be handled as follows:

- You must distribute the Notice to consumers no later than *(time)* on *(date)*. This Notice advises your customers **not to drink** the tap water.

*(Note to ODW staff (then delete): If applicable, this date and time must be within 24 hours from the time the waterworks became aware of the violation. It will usually be 24 hours from the consultation date and time.)*

- The Notice must be distributed in a manner to reach all persons served by hand delivering the Notice to each household connection, posting at conspicuous locations throughout the area served by the waterworks, and/or appropriate broadcast media such as television, radio, social media, or website.
- As discussed with *(insert name of field office contact)*, you plan to take the following actions:
  - *(Field staff to list the required actions:)*
- *On a case-by-case basis, field staff may add any other public notification requirement as needed, and provide such details in this transmittal.)*
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved.)*
- You must repeat distribution of the Notice every three months, for as long as the violation persists. *(This requirement may be deleted if the violation has already been resolved).*

**Draft Notice:** Attached is a draft Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** (Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action; field staff to use checklist (FM-C14-Attachment Chart C) for tracking these situations.)

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at (phone number) or email at (email address).

Sincerely,

Name & Title  
Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Public Notice - Do Not Drink Notice
2. Certification Form

cc: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director. Administrator/Manager, name of County, County



**NOTICE TO CONSUMERS**  
**of the Name WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**DO NOT DRINK TAP WATER**

**Failure to follow this advisory could result in illness.**

The Virginia Department of Health in conjunction with the (Local health department name) Health Department, and (Name of waterworks) Water System are advising residents to only use bottled water for drinking and cooking purposes as a safety precaution. This precaution is necessary because (Provide brief explanation of problem).

**Only bottled water should be used for drinking, beverage and food preparation, and making ice until further notice.**

The tap water is safe to use for washing dishes and clothes, cleaning, and bathing.

Do not drink tap water that you have boiled. Boiling water will not remove the contamination.

Potable water is available at the following locations: (Provide locations where bottled water is available, and any special instructions).

We will inform you when your tap water is safe to drink. To address this problem, we are (Briefly describe corrective actions). We anticipate resolving the problem within (estimate the time/date when the situation is likely to be resolved).

For more information, please contact (name of contact) at (phone number) or (mailing address).

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by (system). State Water System ID#: \_\_\_\_\_.

Date of Notice: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Known Harmful Chemical Substance(s) Suspected in Drinking Water– (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
*(Community Waterworks)*

By direct (hand) delivery on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_  
\_\_\_\_\_

Provided to the following broadcast media *(list: television/radio/website/social media)* on

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ *(date)* at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ *(method and date)*

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address



**FM-C14-T5-Attachment 10.** Unknown Substance(s) Suspected in the Drinking Water.

**INSTRUCTIONS:** Field staff to use this template to finalize the State NOAV as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

### NOTICE OF ALLEGED VIOLATION

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner  
Address 1  
Address 2  
City, State, Zip

Re: Unknown Substance(s) Suspected in the Drinking Water

Dear Waterworks Owner:

This letter is to advise that you appear to be operating a waterworks in violation of **the** Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and Section 12VAC5-590-360 A of the *Waterworks Regulations* (“Regulations”), due to contamination from an unknown substance, known or suspected weapon of mass destruction (WMD).

Section 12VAC5-590-360 A states, in part, “The owner shall provide and maintain conditions throughout the entirety of the waterworks in a manner that will assure a high degree of capability and reliability....”

The Virginia Department of Health classifies this alleged violation as Tier 1 in accordance with Section 12VAC5-590-540 A 1 l of the Regulations, which includes in Tier 1, “...violations or situations with significant potential to have serious adverse effects on human health as a result of short-term exposure, as determined by the [State Health Commissioner] or [Virginia Department of Health] on a case-by-case basis.”

In the case of a Tier 1 violation or situation, Section 12VAC5-590-540 C 1 a of the Regulations requires the waterworks owner to “[p]rovide a public notice as soon as practical but no later than 24 hours after the owner learns of the violation, exceedance, or situation.”

(Field staff may want to insert a narrative to further describe this situation and the need for emergency notification to the consumer. Narrative may include observations, sampling results, dates, times, etc. where appropriate.)

### **Required Actions**

The Waterworks Regulations characterize this as a Tier 1 violation or situation. Whenever a Tier 1 violation or situation occurs, waterworks are required to initiate consultation with this office within 24 hours of learning of the violation or situation. According to our records, the required consultation took place during your conversation with *(insert name of field office contact)* at *(insert time)* on *(insert date)*. At that time, *(insert name of field office contact)* described the public notification requirements, and faxed you a copy of this letter and a suggested “Special Notice” to be delivered to consumers served by this waterworks.

**Public Notice:** In accordance with Section 12VAC5-590-540 A 4 of the Regulations, you are required to issue an “Public Notice” (“Notice”) to the consumers. This Notice requires you to notify the consumers in the area served **within 24 hours** of learning of the violation, and it must be handled as follows:

- You must distribute the Notice to consumers no later than *(time)* on *(date)*. This Notice advises your customers **not to use** the tap water.

*(Note to ODW staff (then delete): If applicable, this date and time must be within 24 hours from the time the waterworks became aware of the violation. It will usually be 24 hours from the consultation date and time.)*

- The Notice must be distributed in a manner to reach all persons served by hand delivering the Notice to each household connection, posting at conspicuous locations throughout the area served by the waterworks, and/or appropriate broadcast media such as television, radio, social media, or website.
- As discussed with *(insert name of field office contact)*, you plan to take the following actions:
  - *(Field staff to list the required actions:)*
- *On a case-by-case basis, field staff may add any other public notification requirement as needed, and provide such details in this transmittal.*
- Until the violation is resolved, you must give a copy of the Notice to all new billing units or new customers, before or at the time service begins. *(This requirement may be deleted if the violation has already been resolved.)*

**Draft Notice:** Attached is a draft Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than *(date)*, you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** *(Field staff to list/provide the details for any required or recommended follow-up actions necessary for the waterworks to implement in order to return to compliance with the Regulations in a timely manner, including any “calling out” for a mutually agreeable schedule and/or completion dates for each corrective action; field staff to use checklist (FM-C14-Attachment Chart C) for tracking these situations.)*

**Enforcement Authority:** Failure to take all the necessary corrective actions in a timely manner to voluntarily return your waterworks to compliance may result in enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have any questions or concerns regarding this matter, please contact me at (phone number) or email at (email address).

Sincerely,

Name & Title  
Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Public Notice – Do Not Use Notice
2. Certification Form

ec Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director. Administrator/Manager, name of County, County

**NOTICE TO CONSUMERS**  
**of the Name WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**DO NOT USE TAP WATER**

**Failure to follow this advisory could result in illness.**

An unknown substance was added to the water supplied by the *(Name of waterworks)* during a recent break in. The Virginia Department of Health in conjunction with the *(Local health department name)* Health Department is advising residents not to use the tap water until further notice.

**DO NOT USE YOUR TAP WATER -- USE ONLY BOTTLED WATER.**

Avoid all contact with the tap water. Only bottled water should be used for all drinking, beverage and food preparation (including baby formula and juice), making ice, brushing teeth, washing dishes or clothes, washing hands, and bathing until further notice.

**DO NOT TRY TO TREAT THE WATER YOURSELF**

Boiling, freezing, filtering, adding chlorine or other disinfectants, or letting the water stand will not make the water safe.

**POTABLE WATER IS AVAILABLE AT THE FOLLOWING LOCATIONS:**

*(Provide locations where bottled water is available, and any special instructions).*

We will inform you when your tap water is safe to use. To address this problem we are *(briefly describe corrective actions)*. We anticipate resolving the problem within *(estimate the time/date when the situation is likely to be resolved)*.

For more information, please contact *(name of contact)* at *(phone number)* or *(mailing address)*.

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by *(system)*. State Water System ID#: \_\_\_\_\_.

Date of Notice: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

VIOLATION: Unknown Substance(s) Suspected in the Drinking Water– (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
(Community Waterworks)

By direct (hand) delivery on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_

Provided to the following broadcast media (list: television/radio/website/social media) on

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ (method and date)

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address





**FM-C14-T5-Attachment 11.** Rescission of an Public Notice - Drinking Water Problem Corrected.

**INSTRUCTIONS:** Field staff to use this template to finalize the Rescission Notice as needed. Staff may apply minor editorial judgment for situational correctness. Complete/select items shown in *italics* and underlined and convert to regular font. Print on VDH letterhead. Pages are 1” top, bottom, and side margins.

**DRINKING WATER PROBLEM CORRECTED**

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

Date

Waterworks Owner

Address 1

Address 2

City, State, Zip

Re: Rescission of a Public Notice - Drinking Water Problem Corrected

Dear Waterworks Owner:

This letter is to advise that the Notice of Violation (NOAV) entitled (“insert title of NOAV”) issued on (date) is now resolved. The public notice delivered on (date) to the customers of (waterworks name) can now be rescinded.

**Required Actions**

**Public Notice:** In accordance with Section 12VAC5-590-540 A 4 of the Regulations, you are required to issue a “Public Notice” (“Notice”) to the consumers in the area served **within 24 hours** of learning that the drinking water problem was resolved. It must be handled as follows:

- You must distribute the Notice to consumers no later than (time) on (date). This Notice advises your customers that the **drinking water problem was resolved**.

(Note to ODW staff (then delete): If applicable, this date and time must be within 24 hours from the time the waterworks became aware that the drinking water problem was resolved. It will usually be 24 hours from the consultation date and time.)

- The Notice must be distributed in a manner to reach all persons served by hand delivering the Notice to each household connection, posting at conspicuous locations throughout the area served by the waterworks, and/or appropriate broadcast media such as television, radio, social media, or website.
- On a case-by-case basis, field staff may add any other public notification requirement as needed, and provide such details in this transmittal.

**Draft Notice:** Attached is a draft Notice for you to distribute as directed above. You may use this Notice as is, or modify it to better meet your situation, as long as the information is accurate and it contains all of the required elements and mandated language. If you decide to change the Notice, we suggest that you contact this Office to verify that your proposed changes meet the requirements of the Regulations. Please insert the name, address, and phone number of a waterworks representative in the spaces provided on the draft Notice.

**Public Notice Confirmation:** Within ten (10) days of completing the public notification, but no later than (date), you must provide this Office with a copy of the Notice that you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute the Notice and submit a signed certification form to this Office may be a further violation of the Regulations. A certification form is enclosed for your use.

**Follow-Up Actions:** (Field staff to add any details here for the waterworks owner when appropriate, particularly about what must be done prior to consumers resuming use of the drinking water.)

If you have any questions or concerns regarding this matter, please contact me at (phone number) or email at (email address).

Sincerely,

Name & Title  
Field office name

ABC:xyz

Enclosures: (If applicable, insert any other relevant information)

1. Public "Rescission" Notice
2. Certification Form

ec: Insert name of LHD - Attn: Insert name of Environmental Health Manager/Health Director. Administrator/Manager, name of County, County

**NOTICE TO CONSUMERS**  
**of the Name WATERWORKS**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**DRINKING WATER PROBLEM CORRECTED**

Customers of *(Waterworks name)* were notified on *(date of original notice)* of a problem with our drinking water and were advised to *(describe recommended action)*. We are pleased to report that the problem was corrected and that it is no longer necessary to *(describe recommended action)*. We apologize for any inconvenience and thank you for your patience. *(Field staff may add any details here for the waterworks owner when appropriate, particularly about what must be done prior to consumers resuming use of the drinking water.)*

As always, you may contact *(name of contact)* at *(phone number)* or *(mailing address)*, at the waterworks with any comments or questions.

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by *(system)*. State Water System ID#: \_\_\_\_\_.

Date of Notice: \_\_\_\_\_.

SUBJECT: County/City  
Waterworks: Waterworks Name  
PWSID No: PWSID

RESCISSION NOTICE - Rescission of an Public Notice - Drinking Water Problem Corrected - (tracking info – monitoring period)

**PUBLIC NOTIFICATION CERTIFICATION REPORT FORM**  
(Community/Noncommunity Waterworks)

By direct (hand) delivery on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Posted on \_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

At the following locations \_\_\_\_\_  
\_\_\_\_\_

Provided to the following broadcast media (list: television/radio/website/social media) on

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ (date) at \_\_\_\_\_ a.m./p.m.

Other approved method \_\_\_\_\_ (method and date)

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Signature)

**RETURN FORM WITH COPY OF NOTICE TO:**

**ATTN: COMPLIANCE SPECIALIST**  
Name Field Office, Office of Drinking Water  
Address