

**VDH ODW Regulatory Advisory Panel Meeting**  
**November 21, 2014**  
Richmond, Virginia  
**Meeting Summary**

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**Executive Summary**

This Regulatory Advisory Panel (RAP) has been tasked by the Virginia Department of Health (VDH) Office of Drinking Water (ODW) with advising the agency on its amendments to the Waterworks Regulations (12VAC5-590). The RAP's goals are to improve content and readability, clarify the regulations, and address modern practices already in use by providers within Virginia. The RAP met for the fifth and last time November 21<sup>st</sup>, 2014, to review changes to Parts I, II and III based on recommendations from the first four meetings as well as workgroups formed after the second and third meetings. There will be no further RAP meetings, although a small amount of remaining work was tasked to workgroups. Next steps for the regulation amendment process were outlined at the end of the meeting.

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**Beginning**

Facilitator Frank Dukes of the Institute for Environmental Negotiation, University of Virginia, welcomed members to the fifth and final meeting of the Regulatory Advisory Panel (RAP). Angie McGarvey, Department of Health, Office of Drinking Water (ODW), started with an update on Workgroup 3, which dealt with cross connection controls. [N.B.: The topics covered in the meeting followed the agenda found at the end of this summary; however, for clarity's sake, meeting notes are organized in chronological order within the regulation documents.]

**Review of Part I**

**Section 10: Definitions**

One member suggested removing points 1, 2, and 3 in the definition of "service connection" in light of changes made later in the regulations. He pointed out that the meter is not necessarily the point of demarcation of the service connection in many locations and should not be defined as such. Another member suggested using the phrasing "includes but not limited to." ODW will follow up with wording for this definition, potentially removing 1, 2, and 3.

**Section 55: Relationship of chapter to the Virginia Uniform Statewide Building Code (USBC) (13VAC5-63).**

Section 55 is a new section that was added to address the relationship of the Waterworks Regulations to the Virginia Uniform Statewide Building Code. Angie described the changes in

regulations that were reworded in conjunction with Virginia Department of Housing and Community Development DHCD. No one had any comments or questions.

*The consensus test reflected two 2s and the rest 3s.*

## **Review of Part II**

### **Article I**

#### **Section 360: Responsibilities of the Owner**

One RAP member said that he would like to change the definition of service connection, as it relates to this section. That conversation and decision was deferred for later in the meeting. (See Section 10 of the meeting minutes.)

*The consensus test for changes to Section 360 reflected two 2s and the rest 3s.*

### **Article 3**

#### **Section 460: Classification of waterworks using caustic soda feed**

Angie explained that caustic soda feed was retained for safety reasons.

*The consensus test resulted in two 2s and the rest 3s.*

#### **Section 515: Use of chemicals, components, materials, and products**

ODW presented this section with new wording.

#### **Section 530: Monthly Operating Reports, Table 530.1**

ODW presented this section with the new arrangement—*a* through *h* under Item 3 were removed from this section and added to Table 530.1 for consistency.

*Consensus was reached for 515 and 530, with all 3s.*

#### **Section 560: Safety**

ODW presented two options for language of section 560. The first option was one sentence explaining that a safety program should be in place. The second option outlined essential elements of the safety program, in accordance with VOSH.

*Ten members voted for option one, and six voted for option two. Consensus was not reached in deciding which of these two options were preferable. ODW will make this determination.*

### **Article 4**

#### **Section 600: CCCP requirements**

Discussion in this section touched on DPOR requirements and regulations and the current licensing process.

*The consensus test reflected one 2 and the rest 3s.*

**Section 610: Containment of backflow**

Subsection C: Items 5 and 6, which enumerated fire protection systems, were removed, as they are covered in Chapter 6 of the plumbing code, 608.16.4 and 608.16.5.

Subsection E: There was a request to clarify “mixed-use building” found in Item 11. ODW will clarify in the proposed regulations.

**Section 630: Backflow prevention assemblies, devices and methods for containment**

There were no comments on the proposed changes in this section.

*The consensus test reflected three 2s and the rest 3s.*

**Review of Part III**

**Article 1**

**Section 640: General design considerations**

The changes made in this section were in line with the groundwater sections 840 and 845 based on work from workgroup 4.

Subsection D: One member expressed concern about the withdrawal limitations. The discussion revolved around daily and monthly maximum withdrawal limitations based on DEQ and VDH regulations. Members decided that this section merited follow-up to work out the detail of regulations for each agency. ODW will organize a workgroup 4 meeting to evaluate revisions to Subsection D. It was suggested that this should be a face-to-face discussion rather than one conducted by phone.

**Section 720: Building design and layout**

There were no comments on the proposed changes in this section.

*Consensus was met with all 3s.*

**Article 2**

**Section 830: Surface water sources**

Subsection D: One member raised the concern that the word “reservoir” used in the context of this section would require owning an entire watershed. Instead, the term “pre-sedimentation basin” is the industry standard term for a body of water used for pretreatment to improve water quality. As a result, ODW suggested deleting D altogether. They will create another section or amend an existing one (Section 870 was suggested) for pre-sedimentation design standards.

**Section 840: Groundwater sources**

Subsection F and J are the result of workgroup 4 discussion. They plan on having another workgroup meeting to further determine details of the yield and drawdown test. Workgroup 4 new members include Mike Vergakis and Cliff Parker. One member pointed out that there was a typo in numbering, and there is no Subdivision 4 in subsection J.

**Section 845: Wells located within a Groundwater Withdrawal Management Area (GWMA)**

This Section will need to be addressed by ODW and the DEQ prior to the Workgroup 4 meeting.

**Article 3**

**Section 860: Chemical application**

Members reviewed all proposed changes and had no questions or comments.

*Consensus was met with all 3s.*

**Section 870: Conventional filtration**

Members reviewed all proposed changes and had no questions or comments.

*Consensus was met with all 3s.*

**Section 872: Sedimentation**

Subsection H: It was suggested to incorporate H into B and G rather than stand alone. ODW will follow up to make this language change.

*Consensus was met with all 3s.*

**Section 874: Gravity filtration**

Subsection K: For consistency, sf was changed to ft<sup>2</sup> in Item 5.

*Consensus was met with all 3s.*

One member suggested that the option of re-rating sedimentation basins and filters hydraulic loadings should be included with the respective subsection, instead of a stand-alone requirement. ODW agree to revise the text as suggested.

**Section 960: Taste and odor-powder activated carbon dosage**

ODW explained that there were minor revisions made to this section. RAP members did not have any questions or comments.

**Section 990: Waterworks waste**

No comments or questions were voiced.

**Section 1000: Disinfection**

Subsection C: After discussion about whether Item 3 was necessary based on AWWA standards, it was deleted.

*The consensus test for section 1000 with Item 3 removed reflected one 2 and the rest 3s.*

**Section 1001: Chlorination**

Subsection A: In Item 1b, “chlorinators” was replaced with “chlorine feed systems.” One member wondered whether there should be the suggestion to avoid designs with gas chlorination. ODW pointed out that this is not within their jurisdiction. In Item 3, “surface water” was replaced with “conventional filtration.”

There was further discussion about whether the “shall” should be changed to “may.” ODW pointed out that if “shall” is removed, there would be no basis to require it in the future. When testing for consensus for this proposal, there were a few 1s.

*The consensus test including retaining “shall” reflected one 2 and the rest 3s.*

#### **Section 1002: Chloramination**

*There were no comments and consensus was met with all 3s.*

#### **Section 1005: Ultraviolet light (UV) disinfection**

After a short discussion about defining cleaning mechanisms and UV credits, no changes were made.

*Consensus was met with all 3s.*

#### **Article 4**

##### **Section 1035: Pumping stations**

Subsection D: After discussion about the necessity of upward sloping suction lines, Item 1d was removed.

*Consensus was met with all 3s.*

##### **Section 1050: Pump and controls**

Subsection A: “A 24 hours/day” was removed from Item 6. The word “the” was also removed before “responsible personnel.”

*Consensus was met with all 3s.*

##### **Section 1065: Piping, valves and meters**

Subsection A: One member felt that the word “minimize” is ambiguous and an actual specified velocity was merited. ODW suggested striking all of 1.

Subsection F: Item 4a was rewritten to read:

*“a. A separate means to pump (blow-off) water of unsatisfactory quality to a point away from the groundwater source shall be provided. Blow off discharge shall not create a cross-connection.”*

Item 4b was rewritten to read:

*“b. Systems shall be equipped with a watertight cap or a screened discharge.”*

*Consensus for all of Section 1065 was met with all 3s.*

**Section 1075: Booster pumps to serve individual connections**

This section was removed by ODW. There were no further comments or questions.

*Consensus was met with all 3s.*

**Article 5**

**Section 1080: Basic finished water storage design criteria**

Subsection A: “USBC” was removed from the end of the section and the words “provided as required” were inserted.

*Consensus was met with all 3s.*

Subsection B: One member felt that writing 6 inches is an arbitrary number. This measurement was removed and “to ensure positive drainage away from the structure” added.

*Consensus was met with all 3s.*

**Section 1081: Atmospheric tank storage**

Subsection C: The phrase “direct connection to a sanitary sewer or storm drain” was replaced by “cross-connection hazard.”

Subsection D: “Shall” was changed to “should” in Item 2.

*Consensus on Section 1081 was met for all of with all 3s.*

**Article 6**

One member suggested that the title of the Article should be changed back to “Water Distribution Systems” from “Distribution Piping Systems.” ODW will take this into consideration.

**Section 1120: Minimum pipe size**

No changes were made.

*Consensus was met with all 3s.*

**Section 1160: Valve, Air relief, meter, and blow-off chambers**

Subsection E: There was discussion about the term “within 6 inches of pit or chamber” as members felt that this number was arbitrary. In some cases there is a sloping roof. The term “as high as possible” replaced the previous wording.

*Consensus was met with all 3s.*

**Section 1170: Hydrants**

There were no concerns or comments for this section.

*Consensus was met with 4 twos and the rest 3s.*

**Section 1230: Service lines and meters**

There was discussion in this section of whether the “shall” should be changed to a “should” and metering of fire lines. Ultimately, no changes were made.

*Consensus testing reflected two 2s and the rest 3s.*

**Wrap Up and Next Steps**

This was the last RAP meeting, although workgroup 4 will be continuing work on Sections 640, 840, and 845. Angie reminded members that she provided a handout last meeting showing the steps to the regulatory process. ODW will issue a NOIRA, followed by proposed regulations, followed by final regulations. Angie will be creating a pdf of the final version for RAP members. Regulation documents will be closed for further comment on NowComment. Finally, an evaluation of the RAP process will be sent out for members using the platform Survey Monkey. ODW and the Institute for Environmental Negotiation will greatly appreciate all members filling out the evaluation.

Members of the RAP were offered congratulations and gratitude for their work, including a certificate of appreciation. Members also expressed gratitude for the work of ODW staff as well as that of the Institute for Environmental Negotiation, University of Virginia.

Virginia Department of Health Office of Drinking Water Amendments to the VA Waterworks  
Regulations—Regulatory Advisory Panel (RAP)

RAP Members Present

Jamie Bain Hedges, P.E.—Public Utility, Class 1, Fairfax  
Vincent Day, P.G.—VA Section, American Institute of Professional Geologists  
Tom Fore—Town of Amherst  
Elmer W. Handy—Virginia Rural Water Association  
Chris Harbin—Public Utility, Class 1 at Norfolk Department of Utilities  
Skip Harper—Virginia Department of Housing and Community Development  
Steve Herzog—Virginia Water Environment Association  
Jerry Higgins—Virginia AWWA  
Scott Kudlas—VA DEQ  
Ignatius Mutoti, P.E.—Virginia Society of Professional Engineers  
Craig Nicol—VA DEQ  
Clifton L. Parker, IV, P.E.—Private Utility, Class 3-6, Aqua Virginia Inc.  
Jerry Peaks, P.E.—Engineering Consultant at Bowman Consulting  
David Raines—Virginia Associate of Counties  
Jesse L. Royall, Jr., P.E.—Private Utility, Class 4-6, Sydnor Hydro Inc.  
Lauren Sufleta—Private Utility, Class 1-6 at Virginia American Water  
David Van Gelder—Public Utility, Class 1, Hanover Co.  
Michael Vergakis—Public Utility, Class 3-6, James City  
Larry Wallace—Southeast Rural Community Assistance Project at Southeast RCAP, Inc.  
Uwe Weidel, P.E.—VA Water and Wastewater Authority

Alternates Present:

Alicia Connelly, Public Utility, Class 1 at Norfolk Department of Utilities

Guests Present

Rachel Goldberg  
Emory Rogers, Virginia Department of Housing and Community Development

ODW Staff Present

Susan Douglas  
Angie McGarvey  
Hugh Eggborn  
Jim Moore

IEN Facilitation Team

Frank Dukes  
Elizabeth Moore  
Sarah Burr

**Meeting 5 Agenda – Waterworks Regulations Regulatory Advisory Panel  
Virginia Department of Health Office of Drinking Water**

**Friday, November 21, 9:30 a.m. – 3:30 p.m.**

Virginia Housing Center in Innsbrook; Henrico Room; 4224 Cox Road, Glen Allen, VA 23060

**9:30 WELCOME 9:35 Updates/Revisions to Parts I & II**

*Angie McGarvey—Environmental Regulatory Specialist, VDH-ODW*

**Workgroup 3 (up to 30 minutes)**

- **Part I, Section 55 (new)**
- **Part II, Section 360 C:** Responsibilities of the Owner
- **Part II, Article 4:** Cross Connections Control and Backflow Prevention in Waterworks
- **Part II, Article 3: Operation of waterworks.** *(Follow-up from last meeting; 15 minutes)*
- **Section 460:** Classification of waterworks using caustic soda feed
- **Section 515:** Use of chemicals, components, materials, and products
- **Section 530:** Monthly Operating Reports, Table 530.1
- **Section 560:** Safety

**10:15 Break**

**10:30 Review of Part III, Article 3:** Water Treatment Processes *(up to 90 minutes) IEN lead, with technical assistance from Susan Douglas – Technical Services Director, VDH-ODW Specific revisions to:*

- **Section 860:** Chemical application
- **Section 870:** Conventional filtration
- **Section 872:** Sedimentation
- **Section 874:** Gravity filtration
- **Section 960:** Taste and odor - powder activated carbon dosage
- **Section 990:** Waterworks waste.
- **Section 1000:** Disinfection
- **Section 1001:** Chlorination
- **Section 1002:** Chloramination
- **Section 1005:** Ultraviolet light (UV) disinfection

**12:00 LUNCH**

**12:30 Review of Part III - Article 4:** Pumping Facilities *IEN lead, with technical assistance from Susan Douglas – Technical Services Director, VDH-ODW Specific revisions to:*

- **Section 1035:** Pumping stations
- **Section 1050:** Pump and controls
- **Section 1065:** Piping, valves and meters
- **Section 1075:** Booster pumps to serve individual connections (deleted section)

**1:00 Review of Part III - Article 5:** Finished Water Storage Structures *IEN lead, with technical assistance from Susan Douglas – Technical Services Director, VDH-ODW Specific revisions to:*

- **Section 1080:** Basic finished water storage design criteria
- **Section 1081:** Atmospheric tank storage

**1:30 Review of Part III - Article 6:** Distribution Piping Systems *IEN lead, with technical assistance from Susan Douglas – Technical Services Director, VDH-ODW Specific revisions to:*

- **Section 1120:** Minimum pipe size
- **Section 1160:** Valve, air relief, meter, and blow-off chambers
- **Section 1170:** Hydrants

**2:00 Updates to Part III – Article 1: Design Basis**

*Angie McGarvey—Environmental Regulatory Specialist, VDH-ODW Specific revisions to:*

- **Section 640:** General design considerations Subsection D: Available source capacity
- **Section 720:** Building design and layout Subsections A, B, F

**2:15 Updates to Part III – Article 2: Source Development**

*Angie McGarvey—Environmental Regulatory Specialist, VDH-ODW Specific revisions to:*

- **Section 830:** Surface water sources
- **Section 840:** Groundwater sources -Includes Subsection I - workgroup 4 recommendations
- **Section 845:** Workgroup 4 recommendations

**3:15 PUBLIC COMMENT, MEETING WRAP UP**

- Public comment
- Next Steps
- THANKS FOR YOUR PARTICIPATION.