



Virginia
Regulatory

Final Regulation Agency Background Document

Agency Name:	Virginia Waste Management Board
VAC Chapter Number:	9 VAC 20-80-10 et seq.
Regulation Title:	Virginia Solid Waste Management Regulations
Action Title:	Amendment 2
Date:	March 29, 2001

Please refer to the Administrative Process Act (§ 9-6.14:9.1 *et seq.* of the *Code of Virginia*), Executive Order Twenty-Five (98), Executive Order Fifty-Eight (99) , and the *Virginia Register Form, Style and Procedure Manual* for more information and other materials required to be submitted in the final regulatory action package.

Summary

Please provide a brief summary of the new regulation, amendments to an existing regulation, or the regulation being repealed. There is no need to state each provision or amendment; instead give a summary of the regulatory action. If applicable, generally describe the existing regulation. Do not restate the regulation or the purpose and intent of the regulation in the summary. Rather, alert the reader to all substantive matters or changes contained in the proposed new regulation, amendments to an existing regulation, or the regulation being repealed. Please briefly and generally summarize any substantive changes made since the proposed action was published.

SUMMARY OF AMENDMENT 2 TO THE VIRGINIA SOLID WASTE MANAGEMENT REGULATIONS

The Virginia Solid Waste Management Regulations are designed to provide clear and appropriate standards for the management of non-hazardous solid waste, to prevent open dumping and to prescribe substantive and procedural requirements for the issuance of permits. The Virginia Solid Waste Management Regulations were first adopted in December 1988 as a complete revision of the 1971 regulations that governed disposal of solid wastes in the Commonwealth prior to that time. Responding to the promulgation of federal RCRA Subtitle D regulations in October 1991, the Virginia Waste Management Board amended the regulations in March 1993 to reflect the federal requirements contained in Part 258, Title 40, Code of Federal Regulations.

As a result of the regulatory review conducted by the department, and in response to the petition for rulemaking submitted by the Municipal Landfill Group, an organization of about 40 municipalities, Amendment 2 was proposed to clarify and streamline the regulations and to take into account experience gained by the department since the inception of the modern program. In its effort, the department was assisted by a Technical Advisory Committee that consisted of representatives of the solid waste management community, including environmental consultants, legal professionals and the general public.

Excluding response to public comments, this revised proposal consists of about 300 major and minor changes. While the majority of changes were made to clarify and correct minor matters or to improve procedural requirements, changes were made to reduce the regulatory burden and to reflect changes in the Virginia Waste Management Act itself. The major proposed changes are:

- Development of a state groundwater monitoring program applicable to certain closed sanitary landfills and all construction/demolition/debris and industrial waste landfills;
- Elimination of the requirement for a permit amendment to establish groundwater protection standards;
- Development of the concept of presumptive remedies to streamline the corrective action process;
- Development of a permit-by-rule procedure for composting facilities; and
- Streamlining of remedial actions for open dumps and unpermitted facilities.

Since Aug 28, 2000, when the last draft of Amendment 2 was proposed, the regulations have been modified in order to address public comments, and to begin to address the provisions of the 1999 legislative session. 20 separate individuals and organizations provided over 231 comments during the public comment period for this regulation. Although the majority of the suggested changes were minor in nature, several proposed changes to the regulation have been eliminated, and several new provisions have been added.

Amendment 2 addresses 1999 legislation including the provisions for municipal solid waste landfill siting required under Virginia Code §10.1-1408.4, and the provisions for post closure monitoring and maintenance required by Virginia Code §10.1-1410.2. In addition, Appendix 2.1 of the regulation has been updated to reflect the updated language of Virginia Code §10.1-1455, which sets out penalties.

Statement of Final Agency Action

Please provide a statement of the final action taken by the agency: including the date the action was taken, the name of the agency taking the action, and the title of the regulation.

On March 26, 2001 the Waste Management Board approved Amendment 2 of the Virginia Solid Waste Management Regulations, 9 VAC 20-80-10 et seq.

Basis

Please identify the state and/or federal source of legal authority to promulgate the regulation. The discussion of this statutory authority should: 1) describe its scope and the extent to which it is mandatory or discretionary; and 2) include a brief statement relating the content of the statutory authority to the specific regulation. In addition, where applicable, please describe the extent to which proposed changes exceed federal minimum requirements. Full citations of legal authority and, if available, web site addresses for locating the text of the cited authority, shall be provided. If the final text differs from that of the proposed, please state that the Office of the Attorney General has certified that the agency has the statutory authority to promulgate the final regulation and that it comports with applicable state and/or federal law.

40 CFR Part 258 provides the federal authority for the criteria for municipal solid waste landfills. The web site address for Part 258 is:

<http://www.epa.gov/epahome/rules.html#codified>

The presently proposed amendment deals with the portions of the regulations that are not affected by the federal requirements and that are not subject to the federal program approval. Therefore, the state regulations are no more restrictive than the federal regulations.

The Virginia Waste Management Act authorizes the Waste Management Board to supervise and control waste management activities in the Commonwealth and to promulgate regulations necessary to carry out its powers and duties. Article 2 of the Act prohibits the ownership or operation of an open dump, which is defined in §10.1-1400 to be any:

“...site on which solid waste is placed, discharged, deposited, injected, dumped, or spilled so as to create a nuisance or present a threat of a release of harmful substances into environment or present a hazard to human health.”

The Act further prohibits any person from operating a facility for the disposal, treatment, or storage of non-hazardous solid waste without a permit from the director of the Department of Environmental Quality (§10.1-1408.1 A). The Act requires the permit to contain such conditions

or requirements that would prevent a substantial present or potential danger to human health and the environment (§10.1-1408.1 E). Virginia code §10.1-1402(1), and (11) state:

“The Board shall carry out the purposes and provisions of this chapter and compatible provisions of federal acts and is authorized to:

1. Supervise and control waste management activities in the Commonwealth. “

...”11. Promulgate and enforce regulations, and provide for reasonable variances and exemptions necessary to carry out its powers and duties and the intent of this chapter and the federal acts, except that a description of provisions of any proposed regulation which are more restrictive than applicable federal requirements, together with the reason why the more restrictive provisions are needed, shall be provided to the standing committee of each house of the General Assembly to which matters relating to the content of the regulation are most properly referable. “

The Virginia Waste Management Act is codified as chapter 14 sections 10.1-1400 through 10.1-1457 of the 1950 Code of Virginia, as amended. The web site address for the full text is:

<http://leg1.state.va.us>

or <http://www.townhall.state.va.us>

The Office of the Attorney General has certified that the agency has the authority to promulgate this regulation, and the regulation comports with applicable state and federal law.

Purpose

Please provide a statement explaining the need for the new or amended regulation. This statement must include the rationale or justification of the final regulatory action and detail the specific reasons it is essential to protect the health, safety or welfare of citizens. A statement of a general nature is not acceptable, particular rationales must be explicitly discussed. Please include a discussion of the goals of the proposal and the problems the proposal is intended to solve.

The principal purpose of the Virginia Solid Waste Management Regulations is to provide clear and appropriate standards for the management of waste, as well as substantive and procedural guidelines to establish a sound basis for the issuance of permits for disposal, treatment, and storage of non-hazardous solid waste. The regulations also provide procedures for addressing unauthorized activities such as open dumping, and unpermitted operation. The proper storage, treatment, and disposal of solid waste is necessary for the protection of public health, safety, and welfare.

The initial regulations were first promulgated in December 1988 and were amended in March 1993 to reflect the requirements of the federal Criteria for Municipal Solid Waste Landfills contained in Part 258, Title 40, Code of Federal Regulations. As the result of these changes, the

Virginia solid waste management program received approval from the United States Environmental Protection Agency that enabled the department to grant variances from the federal standards. The presently proposed amendment deals with the portions of the regulations that are not affected by the federal requirements and that are not subject to the federal program approval.

The changes contained in the proposed amendment are designed to capitalize on the department's experience in administering the regulatory requirements during the past twelve years by clarifying and simplifying technical requirements and by streamlining the administrative procedures. In this proposal numerous unnecessary steps, procedures, and determinations have been minimized, or eliminated. The proposal provides for clear mechanisms to allow wastes to be used beneficially. In addition, the proposal amends several sections in response to legislation passed by the 1999 General Assembly.

Substance

Please identify and explain the new substantive provisions, the substantive changes to existing sections, or both where appropriate. Please note that a more detailed discussion is required under the statement of the regulatory action's detail.

Part I - Definitions

Providing a definition of a "waste derived fuel product" will provide a mechanism for legitimate fuels that are manufactured from wastes to have a mechanism for exemption. Prior to providing this definition and the additional clarifications in other sections of the regulations, the production of the fuel, and the use of the fuel required a solid waste management facility permit.

Part II – General Information

- A. Provisions for continued operation to vertical design capacity for all disposal facilities has been added to this section. In addition, provisions for horizontal expansion of construction/demolition/debris (CDD) landfills and industrial landfills have been added to this section. These requirements are derived from §10.1-1408.1.N of the Waste Management Act.
- B. Exemptions from permitting requirements have been added for household composting, and composting for educational purposes.
- C. Timeframes for implementing the 10 year program outlined in 1408.1.E of the Waste Management Act have been added to this section. The Code of Virginia §10.1-1408.1.E required the director to review, and issue written findings on the compliance history of each permittee, as well as the technical limitations, standards, and regulations on which the original permit was based every 10 years. Timeframes for the implementation of this program are required to be added to the board's regulations in this section of the Code.

- D. Requirements for a control program for unauthorized wastes have been added to this section. Facility owners will be required to institute a program to detect and segregate unauthorized wastes.
- E. The provisions for the solid waste information assessment program required by §10.1-1413.1 of the Waste Management Act have been added to this section.

Appendix 2.1 – Penalties and Enforcement

This section includes updated provisions of §10.1-1455 of the Waste Management Act, which was modified during the 1999 legislative session.

Part III – Identification of Solid Waste

- A. Criteria have been provided to establish beneficial uses of waste materials. A list of recognized wastes and their uses have been provided in this section. This will allow the use of waste materials regardless of whether they have been reclaimed.
- B. Coal combustion products can be used under a roadway embankment, and not just under the footprint of a road. This will eliminate a cumbersome approval under the Coal Combustion By-product Regulations.

Part IV – Management of Open Dumps and Unpermitted Facilities

As it previously existed, the administrative requirements required under this section of the regulations were very burdensome. In addition, the director was required to make a large number of determinations throughout the remedial process. This section has been streamlined and clarified, and the director's determinations have been limited to specific phases of the remedial process.

Part V – Solid Waste Disposal Facility Standards

- A. Sanitary landfill siting has been modified to provide for recent legislation prohibiting new landfills, and lateral expansion of landfills in wetlands. Other provisions for landfill siting required under §10.1-1408.4.B. have also been added.
- B. Groundwater monitoring requirements for CDD and industrial landfills and for facilities not subject to federal requirements are provided for in Appendix 5.6.
- C. Permit amendment for groundwater protection standards is no longer required. Approvals will be necessary for the use of background values. A variance will still be necessary for alternate groundwater protection standards.

- D. Approval of closure and post-closure plans has been provided for in Amendment 2. Legislation passed in 1999 addressing post closure monitoring and maintenance in §10.1-1410.2 requires closure and post-closure plans to be approved.
- E. The corrective action program has been updated to allow the facility operator to initiate corrective action at an early point in time to streamline corrective action. The program also provides for presumptive remedies and in some cases will eliminate extensive studies leading to a more formal selection of remedies.

Part VI - Other Solid Waste Management Facility Standards

- A. Updated provisions have been provided for composting. The regulation establishes two types of composting facilities and four categories of waste materials. These updated provisions allow for reduced siting and design requirements for some types of composting. In addition, establishing categories of waste allows for specific testing procedures to be performed that are the most applicable for a given category of waste. This section has also been updated to allow for a permit-by-rule (PBR) procedure for compost facilities accepting less than 700 tons/quarter. Specific PBR application procedures are provided in Part VII.
- B. Provisions for remediation waste management units have been added. Remediation waste management unit criteria provide a mechanism for temporary solid waste management units that are used during voluntary remediation. The criteria provide for an expedited approval, and a basis for the director's evaluation.
- C. Requirements for landfill mining have been added.

Part VII – Permitting of Solid Waste Management Facilities

- A. Provides for a permit-by-rule for composting facilities.
- B. Adds public comment period required by §10.1-1408.1.B.5
- C. Simplifies the permit amendment procedures reducing the categories of amendment from three to two. The substantive amendment category has been eliminated. The various amendments outlined in Appendix 5.6 were revised accordingly.

Part VIII – Special Wastes

- A. Provisions for asbestos waste have been clarified and updated to be more consistent with the federal requirements.
- B. Provides for criteria for waste tire storage units.

- C. Criteria for PCB have been modified to be consistent with the federal criteria in 40 CFR Part 761.3. And provide for an application for the disposal of some PCB bulk product wastes.

Part IX – Rulemaking Petitions and Procedures

No substantive revisions.

Issues

Please provide a statement identifying the issues associated with the final regulatory action. The term “issues” means: 1) the advantages and disadvantages to the public of implementing the new provisions; 2) the advantages and disadvantages to the agency or the Commonwealth; and 3) other pertinent matters of interest to the regulated community, government officials, and the public. If there are no disadvantages to the public or the Commonwealth, please include a sentence to that effect.

Advantages to public:

1. Eliminates unnecessary permitting, and provides exemptions from permitting requirements
2. Provides a mechanism for reusable wastes to be evaluated for beneficial use.
3. Streamlines and clarifies procedures for the remediation of open dumps and unpermitted facilities. Clarifies and speeds process for corrective action.
4. Provides for quicker permit for composting facilities less than 700 tons/quarter. In addition, no permit fee is required for a permit-by-rule.
5. Clarifies requirements for remediation waste management, tire management, and landfill mining.
6. Makes the regulation more consistent with applicable state laws.

Advantages to the agency and the Commonwealth:

1. Makes the requirements of the regulations easier to understand, and therefore easier to implement.
2. Provides formal procedures for various determinations and evaluations by the director, thereby eliminating inconsistency. These evaluations and determinations include beneficial use evaluations, determinations for the remediation of open dumps and unpermitted facilities, and state groundwater monitoring program, and the corrective action program.

Disadvantages to the public, the agency, and the Commonwealth:

There are no immediately apparent disadvantages that could be determined.

Statement of Changes Made Since the Proposed Stage

Please highlight any changes, other than strictly editorial changes, made to the text of the proposed regulation since its publication.

Consolidated and modified boundary definitions and eliminated use of boundary related terminology that was not defined throughout the regulation.

Reference the new form 50-25, Solid Waste Information and Assessment Reporting Table at the end of the regulation.

9 VAC 20-80-10 Definitions

Modified definition of "Floodplain"

Modified definition of "Groundwater"

Modified the definition of "Open dump"

Eliminated definition of "Disposal Boundary"

Eliminated the definition of "On-site industrial waste landfill"

Eliminated the definition of "Sole source aquifers"

9 VAC 20-80-60

Eliminated the word "waste" from "captive industrial waste landfills" changing term to "captive industrial landfills".

Clarified that facilities are required to comply with new requirements in the regulations.

Tires from mining equipment can remain in the mine if allowed by DMME permit.

9 VAC 20-80-100

Modified date of the 10 year permit review.

9 VAC 20-80-113

Eliminates requirement to include unauthorized wastes received in the annual report for the facility.

9 VAC 20-80-116

Identifies a captive industrial landfill as a captive waste management facility.

9 VAC 20-80-160

Replaces the word "ash" with "coal combustion by-products"

9 VAC 20-80-180

Clarified the applicability of the chapter as it relates to municipal solid waste landfills.

Eliminates the use of the term "sole source aquifer"

9 VAC 20-80-250

Requires confirmation of permeability using an insitu test method

Provides for 10 days for the submission of a written report describing the receipt of unauthorized waste.

Modified statements regarding final cover construction.

Provided for alternate timeframes for the application of final cover with the approval of the director.

Recognizes that whitegoods may be received by a facility, but not disposed while PCB and CFC are in place.

Requires a site plan with monitoring wells as a map to be submitted with boring logs and provides the schedule for submission.

Changes the first sampling event to a "sampling period" and allows 180 days for the sampling period.

Allows the director to extend the time allowed for an alternate source demonstration for good cause.

Removes requirement for rate and extent determination from assessment monitoring program.

Clarifies that background is required for detected constituents.

Defines recent groundwater data as data from the previous calendar year.

After a facility inspection the department will require any necessary construction. Rather than ordering the construction.

9 VAC 20-80-260

States that whitegoods must be free of CFC and PCB prior to placement on the working face.

Requires confirmation of permeability using an insitu test method

Modifies statements about initiating final cover construction.

After a facility inspection the department will require any necessary construction. Rather than ordering the construction.

Specifies compacted soil rather than clay.

9 VAC 20-80-270

Requires confirmation of permeability using an insitu test method.

Establishes criteria for the application of intermediate cover.

Establishes timeframes for the application of final cover and allow the director to approve additional time.

Provides for the annual determination of groundwater flow rate and direction

After a facility inspection the department will require any necessary construction. Rather than ordering the construction.

9 VAC 20-280

Clarifies that gas management is applicable to all disposal facilities, not just sanitary and CDD landfills.

Clarifies that an amendment is required when submitting a gas remediation plan.

9 VAC 20-80-290

Eliminates a proposed exemption for calculation of leachate generation rate for facilities discharging to a treatment works.

9 VAC 20-80-310

Provides procedures for public meeting for a corrective measures assessment or proposal of presumptive remedy.

Appendix 5.6

Clarifies under what circumstances the state groundwater monitoring program applies.

Clarifies that a potentiometric surface map will be the method for evaluating groundwater surface elevations, and the owner/operator shall modify the monitoring network as applicable prior to the next monitoring event.

Clarifies what is intended by a statistically significant increase and provides a time period for verification sampling.

Clarifies that the constituent detected is an Appendix 5.1 constituent.

Clarifies that the statistically significant increase mentioned in this section, is an increase above the groundwater protection standard.

Eliminates the compliance period mentioned in this section and redefines the length of the monitoring period in more concrete terms.

Requires a potentiometric surface map in the annual report.

9 VAC 20-80-340

After a facility inspection the department will require any necessary construction. Rather than ordering the construction.

9 VAC 20-80-360

Allows for natural barriers in addition to fencing for facility access control.

After a facility inspection the department will require any necessary construction. Rather than ordering the construction.

9 VAC 20-80-380

After a facility inspection the department will require any necessary construction. Rather than ordering the construction.

9 VAC 20-80-390

After a facility inspection the department will require any necessary construction. Rather than ordering the construction.

9 VAC 20-80-470

After a facility inspection the department will require any necessary construction. Rather than ordering the construction.

9 VAC 20-80-480

Clarifies that a new permit is required for an expansion or increase in capacity.

9 VAC 20-80-500

Includes clarification regarding applications for new facility permits and permits for captive industrial landfills consistent with the requirements of 10.1-1408.1.B of the Code of Virginia.

9 VAC 20-80-510

Includes other appropriate methods for characterization of bedrock.

9 VAC 20-80-550

This clarifies that an additional certification is required.

9 VAC 20-80-700

Coordinates the section with the requirements of the underground storage tank program.

9 VAC 20-80-790

Includes clarification regarding variance applications for new facility permits and permits for captive industrial landfills consistent with the requirements of 10.1-1408.1.B of the Code of Virginia.

Public Comment

Please summarize all public comment received during the public comment period and provide the agency response. If no public comment was received, please include a statement indicating that fact.

General

Many comments pointed out errors in spelling grammar or organization. In some cases terminology in the regulation had been misused. Several suggested editorial modifications were incorporated into the regulation.

Comments were presented in support of a particular concept or section in the regulation. The department appreciates these comments.

Numerous questions were presented without the specification of any suggested change to the regulation. Responses have been provided to these individual questions which will be forwarded to the individuals having commented on the regulation. However no change to the regulation was provided in response to the question.

Under the provisions of the existing regulation the director was the director of the Department of Waste Management and the "Director" was the director of that department. Some comments were made where existing language was modified to recognize the new relationships created by this regulation in that the "department" is now the Virginia Department of Environmental Quality (DEQ) and the director is the director of DEQ. Where changes were recommended that were not consistent with this relationship, the change was not incorporated into the regulation.

Several statements were made suggesting that facilities should not be required to comply with new provisions of the regulation. A statement was added to Part II of the regulations clarifying that facilities are required to comply with new provisions in the regulations, and under what circumstances permits must be modified.

A comment objected to language at the beginning of 9 VAC 20-80-480 because the intent of the modification was unclear. The section was rewritten to clarify the intent, which is to require local approval for all expansions and require a permit fee only for expansions that increase waste disposal area and are not related to remedial efforts.

Definitions

Comments were made suggesting definitions of terms that were never used in the regulation, definitions that were already provided in the regulation or definitions of terms that were very similar to existing definitions. These suggested definitions were not necessary and were not incorporated. (water table, new sanitary landfill, lateral expansions, compliance monitoring period)

Comments were made requesting definitions of concepts that were already defined in the context of the regulation. These definitions concern complex subjects where a discussion in the regulations regarding the concept has been provided. A simple definition of the term would not provide any meaningful additional information so these definitions were not incorporated into the regulation.

(groundwater protection standard, statistically significant increase, over an active fault)

Several comments were made regarding the consolidation of all boundary definitions. Similar definitions were consolidated in response to the comment. (disposal boundary, facility boundary, landfill disposal area, lateral expansion)

Comments were made suggesting changes to make the regulation more consistent with federal regulation, particularly in the area of definitions. Where the state program parallels the federal

program, the definitions were modified to be consistent. Where a federal program is not implemented in the state, some definitions were modified from the federal definition or deleted in order to eliminate confusion. (groundwater, open dump, sole source aquifer, underground source of drinking water)

One comment indicated that the definition of "closed facility" was too broad and could be misused over time. It is not the intention of this regulation to expand the department's ability to require re-closure of previously closed units to comply with current regulation. The criteria for closing a unit have not changed, so a unit that was closed under a previous regulation would still be considered closed under this amendment.

Beneficial Use

Several comments were made suggesting exemptions of some wastes from regulation or beneficial uses of various waste materials (tire chips, tire shred, sawdust, coal combustion by-products). Materials and uses that have been included in the beneficial use list in 9 VAC 20-80-150.E.2.a are uses that have previously been approved by the department through beneficial use determinations or variance determinations that have a record of success. Other materials still can be approved using the new beneficial use process in 9 VAC 20-80-150.E.2.b, or the variance process in Part 9 of the regulations.

Consistency with Other Bodies of Regulation

Numerous comments were made suggesting changes that were inconsistent with federal regulation. Where suggested changes were inconsistent with the requirements in 40 CFR Part 257 and 40 CFR Part 258, the suggested changes were not accepted, and the language reflecting the federal requirement was retained. Areas of suggested changes related to landfill design and groundwater monitoring.

Comments were made suggesting changes that were inconsistent with the Code of Virginia. Where changes were inconsistent with 10.1-1400 the changes were not accepted and the language reflecting the requirements of the Code was retained.

One comment indicated that the regulation in one area was inconsistent with the Code of Virginia related to the timeframe for closure of the facility. Recent requirements of the Code of Virginia requiring the department to establish a schedule of facility closure consistent with 10.1-1413.2B, supercede a facility's ability to continue to operate until it reaches vertical design capacity. The regulation is consistent with the code and does not require modification.

Timeframes

Comments were made suggesting that the regulations be modified to include dates for events from the Code of Virginia and the existing regulations that have already passed. Most dates that have passed were not included or were removed from the regulation. Including expired dates in the regulations would only confuse most issues, so those dates have not been provided.

Some comments were made indicating that additional time was necessary for preparing an application or performing a task. Some comments indicated that the timeframe required for a

task was not clear enough and the regulation should be modified to clarify or specify a timeframe. In most cases where additional time was requested the department has provided additional time. However, in some cases the time allowed for an activity was adequate or already clear in the regulation so no modification was made. (background concentrations, groundwater protection standards, submission of maps, recent groundwater data, closure plans submission

Several comments regarding closure indicated an objection to the provisions for 10 years of post closure care only after certification from a professional engineer and indicated that the 10 years of post closure for facilities closing on October 9, 1993 should end in October 2003. Facilities were required to stop accepting waste by October 9, 1993, they were not required to close by that date. The 10-year post closure timeframe can vary widely for these facilities. The 10-year post closure timeframe does not end in October of 2003. Engineer certification of closure was included in the 1988 regulation and in Amendment 1 of the regulation in 1993. The regulation has been clarified to indicate that the date of the engineer's certification of closure is the date of closure.

Exemptions and Exclusions

One comment requested that the materials exempt for disposal in a mine site under DMME authority include the large tires from mining vehicles. These tires have consistently been a problem at conventional landfills and these materials have been added to the items that DMME has the authority for disposal.

A comment suggested that coal ash should be exempt from regulation when used in accordance with approvals from the Virginia Department of Agriculture and Consumer Services. This exemption is already available under 9 VAC 20-80-160A4 of the regulation.

Control Program for Unauthorized Waste

Several comments were made indicating that additional detail was needed to clarify some of the terms and concepts used to describe this program. It was suggested that additional clarification be provided as to the type of monitoring to be provided for unauthorized wastes. In addition the comment questioned the amount and type of training required. The requirements for sanitary landfills provides additional detail regarding the types of monitoring to be performed for unauthorized wastes. The program is general in nature to allow facilities the flexibility to train personnel, and monitor for unauthorized waste in a manner that is best for their facility and that meets the general guidelines in the regulation.

Comments were made suggesting that maintaining information regarding the receipt of unauthorized waste in the facility operational record rather than submitting material in a report each year should be sufficient. The department agrees that the submission of this data should be an unnecessary burden and the requirement was eliminated.

Clarification has been provided, as requested, that the control program for unauthorized waste does not apply to captive facilities.

Open Dump Criteria

A comment was provided indicating that there should be allowances for vandalism related to the burning of waste materials. Remedial actions will be required regardless of who is responsible for the open burning. No clarification of this issue is required.

A comment requested clarification of what is meant by "responsible party" as used in the sections discussing open dumps and unpermitted facilities. Although this term is used in the Waste Management Act, it is not defined. Responsibility can be established as a matter of law. The department does not see the need to restrict or otherwise define this term in the regulation where the law is not specific.

A comment indicated that the owner/operator may not have knowledge of the waste being remediated on his site, and he should only be required to provide information at his disposal. Ultimately the owner/operator is responsible for unauthorized wastes on his property. This section states that the owner/operator or other responsible party will provide information on the waste being remediated.

A comment indicated that the open dump evaluation criteria in Appendix 4.1 was not referenced in part 4 and should be eliminated from the regulation. The department uses the form so the form was retained.

Sanitary Landfills

One comment suggested that the regulations should specify the standard operation of a facility. The regulations define the more sensitive areas of facility operation and a site specific operations plan is developed addressing those criteria. Because facilities operate differently, providing a prescriptive standard for facility operation would not allow the flexibility that the current regulations afford.

One comment states that the facility operator has no control over waste haulers and cannot "ensure" that unauthorized wastes are not disposed. A facility does have control over waste haulers as they enter the facility and as they dump their loads of waste. The operator should ensure that unauthorized wastes are not disposed of at his facility.

CDD Landfills

One comment suggested that CDD landfills will not be sited where they could increase the elevation of a flood by greater than one foot and suggested eliminating the requirement for not restricting flow of water. The existing regulation requires landfill design such that the facility is protected from washout and it does not restrict the flow of water. These requirements are intended to protect the waste mass. Prescribing a one foot elevation change is not any more protective and does not take into account the size of the water body, the speed of the water and other design considerations. The existing language is more protective where there is the potential for washout and the existing language was retained.

Industrial Landfills

One comment indicated that intermediate cover should not be required for facilities receiving coal combustion by-products. Intermediate cover is only required in areas that have not received

waste for 30 days. Erosion and washout are likely if ash is exposed for extended periods of time therefore that requested modification was not incorporated into the regulation.

Several comments indicated that the regulation should address facilities that dispose of coal combustion by-products then later remove the material for beneficial use. This comment was incorporated into several areas of the regulation and additional flexibility has been provided for facilities removing CCB for beneficial use.

A comment suggested that a stockpile of daily cover should not be required for facilities disposing coal combustion by-products. Facilities are only required to have a supply of daily cover materials if daily cover is applied. If daily cover is not required, a three-day supply is not required.

Additional time was requested for beginning closure and completing closure activities. The timeframes for closure are consistent with the timeframes for sanitary landfills and the closure of an industrial facility is not as complex. The suggestion was not incorporated into the regulation.

A comment indicated that a permit-by-rule be provided for captive industrial facilities. A permit-by-rule has not been provided because establishing an adequate groundwater monitoring system for such a facility can be complex and is not suited to the permit-by-rule process. Monitoring requirement for these facilities is site specific.

All landfills

A comment was made indicating that new language regarding the acceptance of white goods only when PCB and CFC have been removed will prevent a facility from accepting white goods when the requirement is intended to prevent the disposal of PCB and CFC in a landfill. Wording has been clarified to the applicable sections of the regulation to allow the acceptance of white goods and the disposal of those items only after appropriate CFC and PCB removal.

Several comments requested clarification of the requirements for insitu permeability testing of soil liner. The department clarified these requirement indicating that confirmation testing will be conducted on a test pad so that construction activities will not be compromised by this time consuming test.

One comment suggested that the setbacks from the right of way for leachate storage were overly restrictive. The setbacks for leachate storage are consistent with the setback from right of way that are required for disposal units and are appropriate since these units are used to manage leachate which is a solid waste.

A comment suggested that the requirement to demonstrate a commitment to provide cover materials, a site characteristic that could prevent or restrict siting of a landfill, should be removed from the regulation. The comment indicated that the requirement did not allow flexibility to solicit competitive bids for soil during the life of the facility. Since the requirement does not indicate that the duration of the commitment, the requirement does not restrict the facility from seeking new contracts for cover materials while the facility is operating.

One comment suggested that the engineer in charge of construction quality assurance (CQA) should not be the same as the design engineer. The suggestion is not consistent with EPA guidance on the relationships of individuals overseeing CQA, so the suggestion was not incorporated into the regulation.

A comment requested that the requirement for leachate quantity estimates still be required for facilities discharging leachate to the sanitary sewer. The department agrees that these estimates are needed for planning purposes and have reintroduced the applicable requirement.

The department has provided additional language providing flexibility regarding the boring techniques used in the site investigation in response to comment.

Gas Management

The regulation was changed so that a demonstration was required for CDD and Industrial landfills to indicate that gas was not a problem at the facility. Otherwise gas monitoring would be required. Previously, gas monitoring was not required unless gas was a problem at the facility. Several objected to this modification. If gas monitoring is not performed there was no way for a facility to know if gas is a problem. The modification to the regulation was made to address this discrepancy.

A comment was provided indicating that gas probe pressure reading should not be required unless methane is detected. If a facility fails to monitor probe pressure it may be hard to determine why methane is detected at one event and not at another. Probe pressure is necessary to monitor the behavior of landfill gas and is consistent with guidelines regarding gas monitoring.

A comment was provided indicating that clarification was needed indicating if an amendment was required for the submission of a gas remediation plan. Clarification was provided, an amendment is required.

State Groundwater Monitoring Program

Numerous suggestions were received regarding the State Groundwater Monitoring Program provided in Appendix 5.6.

Comments were received questioning why the provisions for sanitary landfills were not provided in the appendix and stating that the requirements in 5.6 should be similar to the requirements for sanitary landfills. The requirements for sanitary landfills have been included in Part 250 of the regulation because these requirements are prescribed in federal regulation. CDD landfills, industrial landfills, and sanitary landfills that stopped accepting waste by a prescribed date are not required to monitor groundwater in accordance with federal requirements. In order to provide a consistent method of monitoring groundwater for these facilities the state criteria were developed and included in an appendix, because a variety of facilities can monitor under the

criteria. The requirements are protective, but are not the same as the federal requirements and provide some relief from the specificity of the federal program.

Several comments indicated that flow rate and direction determination should be determined every year consistent with the requirements for sanitary landfills. The department agrees with the value of this information, which does not require additional data to be collected so the requirement was included in the regulation.

One comment suggested providing a timeframe for modifying the groundwater monitoring network when a determination is made that the network is inadequate as a result on the evaluation of the static groundwater surface elevation. Clarification of the timeframe was provided as requested.

Several comments recommended eliminating the term "compliance period" which was based on the active life of the facility. The term was eliminated and the duration of Phase III monitoring will depend on the facilities progress in corrective action and the length of the post closure care period.

One comment recommended using flow charts to describe the state monitoring program. Additional clarifications have been provided in the section so that a flow chart outlining the section would be unnecessary.

One commenter suggested extensive revisions of the State Groundwater Monitoring Program. Many suggestions reworded the language of the section without changing the meaning, or moved sections to clarify certain issues. Most of the original language of the section has been retained, but changes to the section have been made in response to the comment. A demonstration of an alternate source can be made during Phase I monitoring. A potentiometric surface map is required to show the static groundwater surface on an annual basis. Several areas of Appendix 5.6 that reference statistics, sampling, or wells have been clarified as indicated in the comment.

One comment suggested that after an initial Appendix 5.1 analysis, Phase III monitoring should only require analysis for the constituents detected in the wells. The regulation does allow for this scenario. However, sampling is still required for other constituents at various intervals to detect any new constituents in the groundwater.

One comment questioned what "solid waste constituents" meant. Constituents are based on the phase of monitoring that the facility is in and could be either Appendix 5.1 or Appendix 5.5 constituents.

Additional Comment Regarding Groundwater Monitoring

A suggestion was made requesting that groundwater protection standards be established only for those Appendix 5.1 groundwater constituents that were detected and not for the full list of appendix 5.1 constituents. Because the established groundwater protection standards must be placed in the operating record and submitted to the director, with every monitoring event an additional constituent could be detected and an additional groundwater protection standard

would have to be placed in the operating record and sent to the director. Providing the groundwater protection standards for all constituents eliminates repeated updating of records and submissions to the director.

One comment suggested that the appropriate maps to be submitted with final boring logs should be defined. The department agrees and has incorporated a requirement for a site plan showing the location of all monitoring wells to be provided with the boring logs.

Two comments requested that the director be allowed to extend the 90 days allowed for the demonstration that an alternate source is causing contamination. The department has made the modification to allow the director to extend the 90 days for good cause.

Appendix 5

Various suggestions were made requesting modification to the tables included in Appendix 5. Several changes were made to clarify the tables as requested.

Several comments suggested modifications to the constituents listed in the tables. Modifications were not made to the tables since they are consistent with federal requirements. Appropriate flexibility is allowed under the state program for modified constituent lists.

Changes were suggested regarding statistical procedures provided in the regulation. However, the language in the existing regulation provided facilities with more options with relation to statistics and the existing language was retained.

Transfer stations

A comment indicated that at transfer facilities clearing waste away at the end of a working day was not necessary for 24-hour operations. The requirement in the regulation has not changed in this area. Facilities having variance approvals for 24-hour operation would not need to comply with this requirement.

Facility Closure

A comment was provided for each facility indicating that the department should notify the facility owner if the closure is satisfactory within 30 days of the engineer certification. Depending on the type of facility, review of closure documentation may take longer than 30 days. Internal department procedures will ensure a timely review of closure documentation.

Additional clarification has been provided in 9 VAC 20-80-560 in response to comment indicating that closure plans must be approved by the department.

Corrective Action Program

One commenter requested extensive changes to this section. The suggested modifications included rewording the section intending to make it more understandable. Some of these

modifications were incorporated into the regulation. However, other changes included modifying the order in which events occurred within the corrective action program. Where these suggestions diverged from the federal program in 40 CFR Part 258, the changes were not made. Additional changes were suggested based on the assumption that the order of events in the corrective action program would be modified, since the order of events were not modified, these comments could not be incorporated into the regulation.

A comment indicated that clarification was required to indicate if an amendment was required to establish groundwater protection standards for corrective action. The issue has been clarified, no amendment is required.

Amendments

A comment was provided indicating that director approval of a permit amendment for modification of a facility boundary hindered property negotiations. Since director approval is only required subsequent to acquiring land but prior to incorporation of additional property into a permit the directors approval does not affect property negotiations and no change to the regulation was required.

Several changes were suggested requesting that significant modifications, such as corrective action or modification of facility design, be considered minor amendments. Where changes are significant, public participation has been required which requires a major permit amendment.

Several comments suggested removing language that had been added to clarify certain issues. Clarifying language was retained.

Since closure plans are required to be approved, suggestions to remove closure plans from the list of amendments were not incorporated and existing language was retained.

Special Wastes

A suggestion was provided indicating that drums need not be opened a both ends. The department feels that this procedure ensures that drums are empty when they are disposed and has not changed the requirement.

A comment was provided stating that since benzene is the only hazardous constituent in the analysis for BTEX, the BTEX analysis should be deleted in lieu on an analysis for benzene. The analysis is required to identify soils contaminated with petroleum not hazardous constituents so the requirement was retained.

Variance

Several comments indicated that Variance applications should be reviewed within a set timeframe. Since a variance application can be submitted for virtually every section of the regulation, and variances from multiple sections of the regulations can be submitted under one variance request, the department has not provided a specific timeframe for variance review in the regulations. However, internal department procedures are in place to ensure the timely review of these applications.

Several comments indicated a variety of design scenarios and regulatory options that should be allowed under the regulations. Since all possible alternatives cannot be provided in the regulations. These alternatives can be presented under the provisions for a variance to the applicable requirement of the regulation.

Detail of Changes

Please detail any changes, other than strictly editorial changes, that are being proposed. Please detail new substantive provisions, all substantive changes to existing sections, or both where appropriate. This statement should provide a section-by-section description - or crosswalk - of changes implemented by the proposed regulatory action. Include citations to the specific sections of an existing regulation being amended and explain the consequences of the changes.

9 VAC 20-80-10 Definitions

Definitions added to support new concepts and for clarification:

Anaerobic Digestion

Bioremediation

captive industrial landfill

Compost

Conditionally exempt small quantity generator

Container

Convenience center

Facility boundary

Household hazardous waste

New solid waste management facility

Operating record

Regulated medical waste

Remediation waste

Remediation waste management unit

Secondary containment

Small landfill

Stabilized compost

TEF of Toxicity Equivalency Factor

Terminal

Tire chip

Tire shred

Unadulterated wood

Vegetative waste

Waste derived fuel product

Waste tire

Wastewaters

Definitions modified for clarification:

Bottom ash
Closed facility
Construction/Demolition/Debris Landfill
Floodplain
Groundwater
Landfill disposal area
Lateral expansion
Materials recovery facility
Open dump
VPDES

Definitions eliminated because they are no longer used or have been replaced by others terms:

Asbestos containing material
Disposal boundary
Friable asbestos
Infectious waste
On site industrial waste landfill
Sole source aquifers

9 VAC 20-80-60 Applicability of chapter.

Incorporates provisions from §10.1-1408.1N of the Code of Virginia governing the vertical and horizontal expansion of various types of landfills.

Provides for new conditional exemptions for composting household waste at the site of generation and composting for educational purposes.

Updates conditional exemption for petroleum products and solid wastes from mineral mining.

Provides new exemption for the storage of tires.

9 VAC 20-80-100 Enforcement and Appeal

Provides schedule for the 10 year review of compliance history and permits in accordance with the requirement of 10.1-1408.1E of the Code of Virginia.

9 VAC 20-80-113 Control program for unauthorized waste.

Provides a control program for unauthorized waste, which requires a facility owner or operator to establish a program for screening out unauthorized waste, educating employees on how to recognize unauthorized waste and provide procedures for removing and reporting unauthorized wastes.

9 VAC 20-80-116 Solid Waste Information and Assessment Program..

Provides for a Solid Waste Information Assessment program in accordance with the requirements of 10.1-1413.1. of the Code of Virginia.

9 VAC 20-80-120 Relationship with other regulations promulgated by the Virginia Waste Management Board.

Updates the list of regulations that relate to the Solid Waste Management Regulations.

Appendix 2.1 Penalties and Enforcement

Updates 10.1-1455 of the Code of Virginia provided in this section with 1999 modifications to that section of the Code

Appendix 2.2 Waste Information and Assessment Program Reporting Table

Provides a reporting table for the program in 9 VAC 20-80-116 and 10.1-1413 of the Code of Virginia.

9 VAC 20-80-140 Definition of Solid Waste

New provisions for this section outline what information is required to be provided to the department for those who wish to make a claim that a material is not a solid waste.

9 VAC 20-80-150 Exclusions

Provides a specific list of acceptable beneficial uses of certain waste materials. Provides procedures for determining beneficial use of other waste materials.

9 VAC 20-80-160 Conditional Exemptions

Provides clarification of those items, which are conditionally exempt from regulation if they are used as a fertilizer or soil conditioner under the authority of the Virginia Department of Agriculture and Consumer Services.

Provides conditional exemption for waste tires generated by and stored at licensed salvage yards as long as they do not pose a hazard or nuisance.

Provides a conditional exemption for tires used in drain fields in a manner consistent with health department regulation.

Clarifies exemption for coal combustion by products used under a roadway. The use not only encompasses the area beneath the footprint of a road, but the area within the roadway prism.

Clarifies the exemptions for wood wastes and provides a new exemption for waste tire chips and mixtures of exempt materials.

9 VAC 20-80-170 Purpose and Scope

Clarifies the section by stating that Part IV, Management of Open Dumps and other Unpermitted Facilities, is not intended to address any facility where the remediation is not clearly mandated by the US EPA and other applicable federal programs. Other state programs address voluntary remediation.

9 VAC 20-80-180 Open Dump Criteria

Allows the director to consider other issues not mentioned in the section for the establishment of alternative boundary other than the waste boundary.

Clarifies the definition of the word "contaminate as used in the section".

Clarifies certain conditional exemptions for open burning as provided for in the air regulations. States that burning of waste inconsistent with this regulation would require that the site be considered an open dump.

9 VAC 20-80-190 Open Dumps

Recognizes responsible parties to open dumping other than the site owner or operator.

9 VAC 20-80-200 Unpermitted Solid Waste Management Facilities

This section has been modified to reflect the three areas to address unpermitted facilities that are now provided in 9 VAC 20-80-210. These are removal and cleanup, closure in place and alternative remedial action.

9 VAC 20-80-210 Remedial Action

The section has been reorganized using many of the same concepts already in the regulation. The regulation defines procedures requiring removal and cleanup of waste, closure in place and alternate remedial action.

Removal requirements include what factors to consider in determining the appropriateness of the removal action and how the department will determine if wastes and waste constituents have been adequately removed.

If waste or waste constituents cannot be completely removed, the section outlines under what condition closure, with waste left in place, may be considered. The section requires the director to enter an order for a closure in place, which contains provisions for review approval and implementation of a closure plan, corrective action if warranted by groundwater monitoring, and furnish appropriate financial assurance for closure and post closure care. In addition, the order must make provisions for any other actions for the protection of human health and the environment.

Alternatives to removal and closure in place are outlined in a section on alternative remedial actions. This section provides procedures for considering alternatives as well as administrative procedures to implement agreements to conduct alternative remedial activities.

Section 9 VAC 20-80-210 has been rewritten to be easier to understand and minimize the number of director's determinations required to implement remedial activities.

9 VAC 20-80-240 General (PART V)

The section has been modified so that all solid waste facilities must comply with financial assurance requirements, not just privately owned and operated facilities.

9 VAC 20-80-250 Sanitary Landfill

A. Siting

The section has been updated to include the new siting requirements of the 1999 legislative session, including prohibitions for construction in wetlands and other sensitive areas.

Language about excessive slope on-site has been modified for consistency with CDD and industrial landfill siting requirements.

B. Design/Construction.

Provisions for access road have been clarified to indicate that effected access roads are those which extend from public roads.

Rather than specifying the design of leachate management and storage in this section, a reference is provided to the appropriate section of the regulation, which specifies the design of leachate control and monitoring systems.

Provisions for a test pad for confirmation of the permiability of the soil liner have been provided.

The term "independent" has been removed form the regulation when describing the CQA engineer since it is not defined in the regulation. These relationships are documented in EPA guidance and are implemented by the department. Permit documents set forth relationships of parties constructing a disposal facility.

C. Operation

A more detailed inspection program for screening unauthorized wastes has been provided in this section.

*The director may approve alternate timeframes for closure in a facilities closure plan.

Update provisions for the burning of certain wastes.

Includes provisions requiring proper maintenance of the facility

Clarifies that any white goods received must be free of chlorofluorocarbons and PCBs prior to placement on the working face.

D. Groundwater Monitoring

Clarification is provided regarding what is intended regarding submission of appropriate maps.

Clarifies timeframe for the submission of certification that wells have been installed.

Clarifies the applicability of the groundwater monitoring requirements based on the effective date of the federal program.

Eliminates passed compliance dates which are no longer applicable.

Eliminates old groundwater monitoring requirements and provides updated groundwater monitoring requirements.

*Defines the timeframe for the first semiannual groundwater sampling period/event.

*Allows the director to extend the timeframe allowed for the demonstration that an alternate source is responsible for groundwater contamination.

*Eliminates the rate and extent evaluation when implementing assessment monitoring.

Provides timeframes for establishing background concentrations and establishing groundwater protection standards. Requires placement of the groundwater protection standards in the facilities operating record. Eliminates the groundwater protection standard permit amendment.

Provides for a potentiometric map to be included in the groundwater annual report based on groundwater data from the previous calendar year.

E. Closure

Provides additional rationale for the evaluation of the adequacy of the landfill cap. Frost, erosion and wind effects should be considered in the design.

Eliminates a specific thickness requirement when synthetic components are used since additional criteria must be considered in the design of the cap.

Eliminates placement of a closure plan in the operating record by a specific date which has passed and allows the update of the closure plan with notification to the director. Requires submission and approval of the closure plans not previously approved by the director prior to implementing construction activities.

The certification of closure is required to indicate that the closure meets the requirements of the plan for construction quality assurance.

Requires the department to inspect a facility at closure to confirm that it is closed. Clarifies that the post closure timeframe begins when the engineer certifies the facility is closed.

F. Post-Closure Care Requirements

If the post closure care period is increased, the post closure care plan is required to be updated and approved by the department.

Clarifies that approval is required when post closure care plans are amended. The plan does not have to be amended until it is ready to be implemented.

After the post closure period, new requirements have been included based on additions to the Code of Virginia in 1999. An assessment of the facility is to be prepared and submitted by a professional engineer certifying that the facility meets certain minimum requirements.

9 VAC 20-80-260 Construction/demolition/debris (CDD) Landfills

States that Chloroflourocarbons and PCBs must be removed from white goods prior to placement on the working face of the facility.

A. Siting

Clarifies that leachate storage units are included in siting setbacks.

Language is changed so visibility of the facility is minimized rather than not visible from the highway right of way. This is consistent with applicable DOT regulations.

Requires the submission of copies of final determination regarding wetlands issued by the Corps of Engineers.

Standardizes the criteria limiting site suitability for all disposal facilities

B. Design/Construction

Provisions for access road have been clarified to indicate that effected access roads are those which extend from public roads.

Requires a gas monitoring program unless the owner can demonstrate landfill gas is not a problem.

Requires a second survey benchmark.

Allows equivalent design of drainage layers for facilities with double liners.

The term "independent" has been removed from the regulation when describing the CQA engineer since it is not defined in the regulation. These relationships are documented in EPA guidance and are implemented by the department. Permit documents set forth relationships of parties constructing a disposal facility.

Provisions for a test pad for confirmation of the permiability of the soil liner have been provided.

C. Operation

Eliminates requirement to designate a specific disposal location.

Provides timeframes for establishing vegetation.

Eliminates reference to groundwater protection level and replaces references to groundwater protection standard.

Includes provisions requiring proper maintenance of the facility.

D. Groundwater monitoring

Eliminates the specific groundwater monitoring criteria in the section and references Appendix 5.6, which provides the new state groundwater monitoring program.

E. Closure

Clarifies that the closure criteria listed here apply to all CDD landfills.

Provides additional rationale for the evaluation of the adequacy of the landfill cap. Frost, erosion and wind effects should be considered in the design.

Eliminates a specific thickness requirement when synthetic components are used since additional criteria must be considered in the design of the cap.

Clarifies the extent of closure for purpose of estimating closure costs.

Eliminates placement of a closure plan in the operating record by a specific date, which has passed, and allows the update of the closure plan with notification to the director. Requires submission and approval of the closure plans not previously approved by the director prior to implementing construction activities.

Establishes timeframes for the implementation of closure activities and provides for extensions of that timeframe.

The certification of closure is required to indicate that the closure meets the requirements of the plan for construction quality assurance.

Requires the department to inspect a facility at closure to confirm that it is closed. Clarifies that the post closure timeframe begins when the engineer certifies the facility is closed.

F. Post-Closure Care Requirements

If the post closure care period is increased, the post closure care plan is required to be updated and approved by the department.

Clarifies that approval is required when post closure care plans are amended. The plan does not have to be amended until it is ready to be implemented.

After the post closure period, new requirements have been included based on additions to the Code of Virginia in 1999. An assessment of the facility is to be prepared and submitted by a professional engineer certifying that the facility meets certain minimum requirements.

9 VAC 20-80-270 Industrial waste disposal facilities

Provides for groundwater and decomposition gas monitoring.

A. Siting

Clarifies that leachate storage units are included in siting setbacks.

Language is changed so visibility of the facility is minimized rather than not visible from the highway right of way. This is consistent with applicable DOT regulations.

Standardizes the criteria limiting site suitability for all disposal facilities.

B. Design/Construction

Requires a second survey benchmark.

Allows equivalent design of drainage layers for facilities with double liners.

Requires a gas monitoring program unless the owner can demonstrate landfill gas is not a problem.

The term "independent" has been removed from the regulation when describing the CQA engineer since it is not defined in the regulation. These relationships are documented in EPA guidance and are implemented by the department. Permit documents set forth relationships of parties constructing a disposal facility.

Provisions for a test pad for confirmation of the permeability of the soil liner have been provided.

C. Operation

Establishes minimum requirements for providing intermediate cover.

Clarifies timeframes for final cover construction and provides for directors approval of alternate timeframes.

D. Groundwater monitoring

Eliminates the specific groundwater monitoring criteria in the section and references Appendix 5.6, which provides the new state groundwater monitoring program.

Requires annual determination of groundwater flow rate and direction.

E. Closure

Provides additional rationale for the evaluation of the adequacy of the landfill cap. Frost, erosion and wind effects should be considered in the design.

Eliminates a specific thickness requirement when synthetic components are used since additional criteria must be considered in the design of the cap.

Clarifies the extent of closure for purpose of estimating closure costs.

Eliminates placement of a closure plan in the operating record by a specific date, which has passed, and allows the update of the closure plan with notification to the director. Requires submission and approval of the closure plans not previously approved by the director prior to implementing construction activities.

Establishes timeframes for the implementation of closure activities and provides for extensions of that timeframe.

The certification of closure is required to indicate that the closure meets the requirements of the plan for construction quality assurance.

Requires the department to inspect a facility at closure to confirm that it is closed. Clarifies that the post closure timeframe begins when the engineer certifies the facility is closed.

F. Post-Closure Care Requirements

If the post closure care period is increased, the post closure care plan is required to be updated and approved by the department.

Clarifies that approval is required when post closure care plans are amended. The plan does not have to be amended until it is ready to be implemented.

After the post closure period, new requirements have been included based on additions to the Code of Virginia in 1999. An assessment of the facility is to be prepared and submitted by a professional engineer certifying that the facility meets certain minimum requirements.

9 VAC 20-80-280 Control of decomposition gases.

States that the section is applicable to all waste disposal facilities rather than just CEDD and sanitary facilities.

Recognizes that certain air regulations may apply to some landfills that are large or that are in non-attainment areas.

Clarifies that a permit amendment is required for the gas remediation plan.

Requires that timeframes for reducing gas levels will be established in the gas remediation plan.

Clarifies that gas condensate may be introduced by gravity to the waste mass without being considered recirculation.

Clarifies that certain operating systems may be required as a result of air regulation.

9 VAC 20-80-290 Leachate Control System and Monitoring

Clarifies that a leachate storage impoundment must be synthetically lined at a minimum and protective of human health and the environment.

Clarifies that leachate may not be discharged to a drainfield.

9 VAC 20-80-310 Corrective action program

States that groundwater protection standards must be established if the corrective action program is initiated.

Provides for presumptive remedies in addition to the assessment of corrective measures. Presumptive remedies may be proposed in lieu of an assessment of corrective measures. Proposal of presumptive remedies does not limit the director's ability to request an assessment of corrective measures.

The section has been modified to clarify procedures and requirements.

Appendix 5.1 List of Hazardous Constituents

Modified to remove reference to specific practical quantitation limits (PQL) since these values can change.

Appendix 5.2

Eliminates references to outdated procedures.

Appendix 5.3

Eliminates an outdated list of constituents.

Appendix 5.4

Provides for updated statistical test methods.

Appendix 5.6 State monitoring program

Provides for an updated state groundwater monitoring program for facilities that are not subject to the monitoring provisions of Subtitle D.

9 VAC 20-80-320. General

Clarifies requirements for financial assurance for facilities treating solid waste.

9 VAC 20-80-330. Compost facilities

Provides new composting provisions based on coordination with composting community and scientists.

Provides reduced requirements for in vessel composting.

Provides for four categories of compost based on potential to harbor pathogens. Compost testing is more rigorous for compost with a greater potential to harbor pathogens.

Provides updated siting standards and setbacks from property lines.

Provides for reduced requirements for facilities composting less than 700 tons/quarter.

Provides updated testing and record keeping requirements.

9 VAC 20-80-340. Solid waste transfer stations

9 VAC 20-80-360. Materials Recovery Facilities

9 VAC 20-80-370. Energy Recovery and Incineration Facilities

Originally proposed to be modified to provide permits for storage or treatment in piles and storage or treatment in containers and tanks, the above three sections have been returned to their original form with some modifications.

9 VAC 20-80-340

Provides for the storage of waste from conditionally exempt small quantity generators at a transportation terminal.

Clarifies setbacks to residential areas.

Clarifies design requirements for receiving and tipping areas.

Clarifies design requirements for facilities storing wastes over night. Clarifies that uncontainerized putrescible waste cannot remain at the end of the day.

Provides requirement for detecting unauthorized wastes.

Adds provision to identify the capacity of the facility.

Provides for closure certification by a professional engineer.

Provides for confirmation of closure by the department.

9 VAC 20-80-360

Excludes facilities receiving industrial wastewater from siting restrictions in areas subject to base floods.

Provides for perimeter security fencing or barriers.

Provides requirements for facilities engaged in bioremediation.

Eliminates provisions for a waste supply analysis program. And requires the capacity of the facility instead.

Eliminates provisions for submission of materials with a date that has passed.

Provides for closure certification by a professional engineer.

Provides for confirmation of closure by the department.

9 VAC 20-80-370

Provides for storage of waste materials on a tipping floor with appropriate controls

9 VAC 20-80-380. Surface Impoundments and Lagoons

Recognizes leachate lagoons.

Provides requirement of inspection at the time of closure.

9 VAC 20-80-400. Waste Piles

Eliminates requirements intended to be added in permitting transfer stations, materials recovery facilities and incineration facilities.

Provides for closure certification by a professional engineer.

Provides for confirmation of closure by the department.

9 VAC 20-80-450. Remediation Waste Management Units

Provides procedures for implementing remedies under part IV or the voluntary remediation program without obtaining a permit from the department.

9 VAC 20-80-460. Landfill Mining

Recognizes methods for implementing landfill mining consistent with the regulation and any existing facility permits.

9 VAC 20-80-470. Miscellaneous Units

Provides for closure certification by a professional engineer.

Provides for confirmation of closure by the department.

9 VAC 20-80-480. Applicability

Recognizes that issuance of a new permit is required for expansions and increases to the capacity of a facility. This requires disclosure and local certifications to be prepared.

Recognizes that remediation waste management units are exempt for permitting requirements.

9 VAC 20-80-485. Permits-by-rule and other special permits

Updates requirements for materials recovery facilities that reclaim or thermally treat petroleum contaminated soils.

Provides permit-by-rule provisions for composting facilities that receive less than 7000 tons/quarter.

Updates public participation requirements for permit-by-rule facilities.

9 VAC 20-80-500. Permit Application Procedures

Modified to recognize the provisions of HB 981 from the 2000 general assembly session.

Additional provisions of the notice of intent for sanitary landfill and transfer stations consistent with 10.1-1408.1B.4 of the Code of Virginia.

Provides for the director determination in accordance with 10.1-1408.1D of the Code of Virginia.

9 VAC 20-80-510. Part A Permit application

Eliminates deep borings from Table 7-1

Provides for additional methods for obtaining subsurface data.

9 VAC 20-80-520. Part B permit application for solid waste disposal facilities

Clarifies that engineers preparing design plans must be registered in the Commonwealth.

Operations plans will include the inspection of incoming waste.

9 VAC 20-80-530. Part B permit application requirements for energy recovery, thermal treatment, and incineration facilities

Re-titles section eliminating reference to thermal treatment.

Eliminates submission of certain data in the application relating to the types of waste received.

These submissions are required in section 9 VAC 20-80-370

9 VAC 20-80-540. Part B permit application requirements for other solid waste management facilities.

Eliminates waste supply analysis under this section.

9 VAC 20-80-550. Effect of the permit

Clarifies the requirement for two separate certification letters.

9 VAC 20-80-560. Closure care

Clarifies circumstances for closure.

9 VAC 20-80-620. Amendment of Permits

There is no variance to financial assurance levels. This statement was therefore, eliminated.

The amendment is now an approval by the director. Amendment for groundwater protection levels has been eliminated to speed the process of establishing groundwater protection standards.

Substantive amendments have been eliminated. Major and minor amendments are called for. Where public participation is needed, amendments are major.

Major amendments will hold public participation in a manner consistent with new permits.

Appendix 7.4

Substantive amendments have been eliminated.

9 VAC 20-80-640. Asbestos-Containing Waste Materials

9 VAC 20-80-650. ~~9 VAC 20-80-850~~ Wastes containing polychlorinated biphenyls (PCB's)

Both sections have been modified to be more consistent with federal requirements regarding the handling and disposal of these wastes.

9 VAC 20-80-670. Tires

Provides specific requirements and standards when tires are stored.

9 VAC 20-80-700. Soil contaminated with petroleum products.

Updates test methods used for petroleum contaminated soils

9 VAC 20-80-750. Variances to permitting requirements

Eliminates variances to deadlines that have passed.

9 VAC 20-80-790. Administrative Procedures.

Adds additional requirements for variances allowing category 2 landfill expansion in accordance with the provisions of HB981 from the 2000 legislative session.

Family Impact Statement

Please provide an analysis of the regulatory action that assesses the impact on the institution of the family and family stability including the extent to which the regulatory action will: 1) strengthen or erode the authority and rights of parents in the education, nurturing, and supervision of their children; 2) encourage or discourage economic self-sufficiency, self-pride, and the assumption of responsibility for oneself, one's spouse, and one's children and/or elderly parents; 3) strengthen or erode the marital commitment; and 4) increase or decrease disposable family income.

The regulations protect the public's health, safety and welfare and the environment from harmful results of the mismanagement of solid wastes. However, Amendment 2 of the Solid Waste Management Regulations has no other direct impact on the institution of the family.

first	mi	last	company name	code
	ddl			
	e			
James	L.	Bannwart	Upper Occoquan Sewage Authority	UOSA
Steven	G.	Olson	Department of The Navy	NAVY
Frederick	L.	Hilliard	New River Resource Authority	NRRA
Jeffrey	T.	Crate	Draper Aden Associates	DAA
A.		Dennison, Jr.	City of Bristol, Virginia	COB
Harvey	E.	Strawsnyder, Jr.	County of Frederick	COF
Richard	H.	Sedgley	McGuire, Woods, Battle & Boothe	COL
Daniel	J.	Campbell	City of Galax	COG
Signey	A.	Clower	County of Henry	COH
Robert	J.	Waldrop	ReUse Technology, Inc.	RT
Matthew	P.	Curtis	American Electric Power	AEP
Terri	C.	Phillips	Joyce Engineering, Inc.	JE1
James	R.	DiFrancesco	Joyce Engineering, Inc.	JE2
Pamela	F.	Faggert	Dominion	DOM
D.		Richard Guidry	USA Waste of Virginia, Inc.	USAW
Michael	C.	Gailliot	Hilltop Sand & Gravel Co., Inc.	HSG
Jeffrey	D.	Marshall	SCS Engineers	SCS
Maureen	K.	Roskoski		MR
Bob		Kerlinger	Organics recycling and Compost Committee Virginia Recycling Association	ORCC
Stephen	A.	Walz	Department of Mines Minerals and Energy	DMME

code	comment	number	citation	department response
MR	"Floodplain" remove the frequency of inundation from the definition. A floodplain is a land surface feature and the frequency is not necessary to define it.	1	010	Provided
MR	Add a definition of "groundwater protection standards" since it is used frequently in the regulation.	2	010	Not provided, A definition is provided in the context of the regulation and is based on certain set constituent levels as well as statistical procedures. A simple definition in part 10 cannot provide a clear description, but a comprehensive description is already provided in 9 VAC 20-80-250D6h and I.
MR	"Karst terrenes" is improperly spelled, it should be spelled "karst terranes"	3	010	Provided.
MR	Add definition of "statistically significant increases" since it is used frequently in the regulation.	4	010	Not provided, A simple definition in part 10 cannot provide a clear definition, but the statistical methods and levels of statistical significance are provided in 9 VAC 20-80-250D4g
MR	"Water table" should be more clearly defined. The term potentiometric surface should be included in the definition.	5	010	No change provided. The definition currently provided in the regulation is consistent with the definition suggested in this public comment and consistent with definitions in applicable geology glossaries. Therefore no change is necessary.
USAW	Definitions of "tire chip" and "tire shred" which include the dimensions of each will restrict the beneficial use of these items.	1	010	Not provided. The department has provided a definition in order to establish specific uses. These uses and other use are possible if materials do not meet the dimensions specified in the definitions. Uses for the "tirechips" and "tire shred" are provided under the regulation. Other sizes/uses may apply for beneficial use under the new provisions in the regulation.

USAW	Include a definition for "new sanitary landfill". The term shall mean a facility or portion of a facility not previously included in a previous determination of site suitability.	9	010	Not provided. Definition of "New solid waste management facility" has been provided. The definition is consistent with the definition recommended. Any additional definitions in this area of 1999 legislation will be addressed in Amendment 3.
USAW	Include a definition of "lateral expansion" which shall mean a horizontal expansion to the waste boundaries of an existing unit	10	010	Not provided. However, the definition is consistent with that definition already in the regulation.
COB	The definition of "closed facility" is too broad and could be misused over time. This could result in some older facilities not being considered closed under the new definition.	1	010	It is not the intention of this regulation to expand the department's ability to require reclosure of previously closed units to comply with current regulation. The criteria to identify if a unit has closed have not changed, so a unit that was closed under a previous regulation would still be considered closed under this amendment. When a facility stopped accepting wastes (prior to Oct. 9, 1993) determines the length of the post closure care period.
DAA	The "boundary" definitions provided in the regulation are numerous. Recommends consolidation of all definitions	1	010	Provided. Changes have been made to numerous sections to consolidate these definitions.
UOSA	Captive industrial landfill and on-site industrial waste landfill seem to describe the same type of facility. If they are different definitions should reflect this	1	010	Provided. The term on-site has been eliminated.
JE1, JE2	Add definition of "compliance monitoring period"	1	010	Not provided. This term is not used in the regulation.
JE1, JE2	Add definition of "New sanitary landfill"	2	010	Not provided. A definition of "new solid waste management facility" has already been provided. The definition would be redundant.
JE1, JE2	Change definition of "groundwater" to be consistent with the federal definition in 40 CFR Part 258.	3	010	Provided.

JE1, JE2	Change definition of "lateral expansion" to mean horizontal expansion of a disposal boundary	4	010	Provided. This modification has been made with reference to the updated boundary definitions.
JE1, JE2	Change definition of "leachate" to be consistent with federal regulation and also keep regulation of septage in the language in the state definition.	5	010	Not provided. This definition takes into account, items that have been contaminated with leachate. The federal definition does not.
JE1, JE2	Change definition of "open dump" to a facility that does not comply with the federal requirements in 40 CFR part 257	6	010	Provided, but without reference to 40 CFR Part 257. The SWMR include these federal criteria in Part IV.
JE1, JE2	Modify definition of "sole source aquifer" to eliminate words such as harmful take definition from safe drinking water act	7	010	Provided. The definition of "sole source aquifer" has been removed. This makes the state open dump criteria more consistent with federal requirements.
JE1, JE2	Modify definition of "underground source of drinking water" to be consistent with federal part 257	8	010	Not provided. The state does not have a groundwater classification system that would eliminate groundwater from potential human consumption. All groundwater within the commonwealth are considered potential potable water supplies.
COB	The proposed language in the regulation does not correctly reflect the statute in 10.1-1413.2B establishing a closure fund for some facilities.	2	060B	Not provided. The conflict outlined in the comment is a conflict within the code and not this regulation. The code provides funds to all facilities and prioritizes all facilities. Local governments only may apply for grants.
AEP	Facilities with approved closure plans should not have to comply with regulatory changes impacting facility closure.	5	060B2d	Not provided. This requirement is taken from the code of Virginia 10.1-1408.1N which requires closure of facilities having reached vertical design capacity. Facilities are required to comply with new provisions in the regulation and the law.
DAA	Recommend allowing CDD landfills the same language as industrial landfills allowing them to receive solid waste until they reach "...the limits of their disposal area specified in their permit".	2	060B4b(1)	Not provided. The suggestion is not consistent with 10.1-1408.1N which allows captive industrial landfills additional flexibility not afforded to CDD facilities.

NAVY	Storage of tires should not be limited to 100.	2	060D11	Not provided. This limit is consistent with the limits in the Code of Virginia.
DMME	Allow the disposal of large tires at the mine site with approvals from DMME.	1	060D8	Provided.
USAW	What qualifies as a repeated material or substantial violation under the 10 year permit review? Placing additional requirements on a facility due to regulatory changes is inappropriate.	2	100E	Not provided. Repeated material and substantial violations is from 10.1 1408.1E of the Code of Virginia. No burden is placed on the permittee unless the permit requires modification as a result of the 10 year permit review. Existing facilities are responsible for complying with changes to the regulations.
DAA	Suggest changing date for completion of 10 year permit reviews to June 30, 2001 since this is the effective date of the law requiring the review.	3	100E1	Provided.
JE1, JE2	What type of monitoring and training is required for the control program for unauthorized waste. How much detail is required.	9	113A	Not provided. The details of the program are already detailed in 250 C1 and the operations requirements for all facilities.
USAW	Reporting information on receipt of unauthorized wastes during an incident and then again on a yearly basis is unnecessary as required under this new section.	3	113B	Provided. The regulation has been modified to eliminate yearly reporting.
JE1, JE2	What annual report is referenced here in the control program for unauthorized waste.	10	113B	Provided. This requirement has been addressed under comment USAW4
DAA	Require waste data for the Solid Waste Information Assessment Program to be reported in tons.	4	116A	Not provided. Saome facilities do not have scales. Reporting in CY provides more flexibility.
DAA	For purposes of the Solid Waste Information Assessment Program, correct to state" managed by the facility" rather than the commonwealth and define the term "storage"	5	116A	The provisions of this section come from the code of Virginia and the terms have the same meaning as the code.
UOSA	A reporting form for the Solid Waste Information Assessment Program has not been provided	2	116D	The form has been provided.
JE1, JE2	The reporting form for the Solid Waste Information Assessment Program has not been provided.	11	116D	Provided.

AEP	This section regarding the Solid Waste Information Assessment Program should not apply to captive waste management facilities	4	116E	Provided.
DAA	The phrase should be modified to read "captive industrial waste facilities".	6	116E	Not provided. However clarification of the section has been made. The suggestion, as written, conflicts with 10.1-1413.1 of the Code of Virginia.
USAW	Tire shred should be allowed for use in leachate trenches as well as chips. The performance is similar but less costly.	6	150E2a(10), 150E2a(11)	Not provided. Protruding wire and irregular shape of chips makes the material hard to install in a trench. Long term performance of tire chips in engineering applications is difficult to justify.
JE1, JE2 RT	editorial Coal ash should not be considered a solid waste when used in accordance with approvals by the Virginia Department of Agriculture and consumer services	12 1	150E2a(13) 150E2a(2)	Provided. Response. This provision is already in the regulation in 9 VAC 20-80-160A4
USAW	This section exempting the beneficial use of non hazardous soil on the site of excavation may open a loophole since a determination of impact to human health and the environment is not performed.	4	150E2a(4)	Not provided. The regulation is consistent with EPA's area of contamination (AOC) policy. The section clearly states the soil must be non-hazardous. Nothing would require the owner to clean up this type of contamination unless there was an immediate and substantial threat to human health or the environment.
USAW	Recommend including sawdust for wetweather use at landfills in the listing of material and appropriate uses considered "beneficial uses".	5	150E2a(7)	Not provided. No request has been provided justifying this use. Approval would be required in order to use the material under the new provisions of the regulation. In addition, requests can be made prior to approval of Amendment 2 using current review procedures.
RT	Supports current modification of beneficial use of coal combustion by-products (CCB)	2	150E2a(8)	Acknowledged.

RT	Supports current modification but the term "ash" used here is incorrect. The regulation term "coal combustion by-products" to describe the ash used here.	3	160B1	Provided.
RT	The term "coal ash" should be replaced with "coal combustion by-products"	4	160B1	Provided
DOM	Coal combustion by-products (CCB) should be allowed for use as a access road material.	3	160B4	Not provided. The regulation allows for an application for the beneficial use of such a material. However, placing the waste in a manner where there is no liner below the material and the material is placed within the groundwater monitoring network of a permitted facility would probably not be advisable. Any potential impact to GW that may result from the placement would be then interpreted as coming from the permitted unit.
USAW	This section indicates that open burning inconsistent with the regulation will require the site to be considered an open dump. Recommend making allowances for vandalism.	7	180B7	Not provided. When something is considered an open dump it becomes subject to certain remedial actions. These remedial actions are appropriate regardless of who is responsible for placing the facility in open dump status.
JE1, JE2	Define "responsible party"	13	190C	Not provided. These terms have not been defined in the code, but are established as a matter of law. The department does not see the need to restrict or otherwise define this in regulation where the law is not specific in this area.
JE1, JE2	editorial	14	210A5b	Provided.
JE1, JE2	The owner/operator may not have any knowledge of the waste being remediated. We recommend that the owner provide any information at his disposal.	15	210B1a	Not provided. While this is true, the owner is ultimately responsible for unauthorized disposal on his property.

USAW	This provision restricts expansions in wetlands. We recommend adding the exceptions provided by the Code of Virginia for those lateral expansions allowed under 1408.5 of the code for which an application has been submitted.	8	250A4	Not provided. The dates that are recommended for inclusion in the regulation have passed. No benefit can be derived for including the date in the regulation. Including the date can only confuse the main issue of these provisions which is to restrict building in wetlands.
MR	The term "over and active fault" used in this section should be defined in accord with earthquake maps or United States Geological Survey definitions..	6	250A9e	Not provided. This section containing the term provides an explanation of what constitutes an active fault within the context of the regulation.
JE1, JE2	Recommend that some plan modifications be allowed unless there is a change that requires a "permit amendment".	17	250B17	Not provided. Any modifications of the facility design must be reflected in the facility permit.
DAA	Clarifying what "conformation testing" means with reference to insitu permiability testing.	8	250B18a(1), 250E5b, 260B17a(1), 260E4b,270 B19a(1), 270E4b	Provided. Clarification has been made to these sections.
JE1, JE2	Change to "confirmation of the permeability of the soil liner shall include the use of in situ testing methods"	18	250B18c(4)	Provided, but not in the specific manner suggested. Changed as suggested in USAW15
USAW	The confirmation of the permiability of the soil liner using an insitu test method will slow down the lanfill development unnecessarily.	11	250B18c4	Provided. The section has been clarified so that it is not misinterpreted. The test is not on the soil liner but on a test pad for the soil liner.
COF	Recommends listing additional liner alternatives including one with a geosynthetic clay liner (GCL).	1	250B9	Not provided. Alternate liner demonstrations are site specific in accordance with the federal provisions of 40 CFR Part 258.
NRRA	The regulations should enumerate standard operation of a facility.	3	250C	Not provided. Regulations allow appropriate levels of flexibility to operate facilities of different types and sizes. Some operational requirements are specified. However, enumerating additional requirements would not allow this flexibility.

JE1, JE2	Change "poly chlorinated biphenyls (PCB)" to "PCB waste" in order to clarify that the waste is not restricted to just PCB.	19	250C1	Provided.
USAW	The regulation should allow the acceptance of white goods, but not allow disposal prior to CFC removal.	13	250C16v	Provided.
DAA	Since the operator has no control over waste haulers, change waste screening to include "other approved reasonable means to minimize the introduction of regulated hazardous wastes, PCB wastes, regulated medical wastes, or other unauthorized solid waste, from reaching the working face of the landfill facility".	9	250C1b	Not provided. Department feels that the operator is responsible for "ensuring" unauthorized wastes are not disposed. A facility does have control over haulers as they enter the facility and dump waste.
USAW	More time is needed to investigate unauthorized waste disposal. Change requirement for reporting from 5 to 10 days.	12	250C1e	Provided.
JE1, JE2	Clarify that notification on unauthorized waste disposal is not 5 days but 5 working days.	20	250C1e	Provided, but not in the specific manner suggested. Additional time has been provided.
JE1, JE2	editorial	21	250C1f	Provided.
NRRA	Recommend including standards for waste density in this section.	1	250C2	Not provided. The suggestion is not consistent with the federal requirement of 40 CFR Part 258 which does not require specific density information. Such a program would be costly to implement and monitor. Nothing prevents facilities from monitoring this information to maximize waste densities at their site.
JE1, JE2	Revise to state "Final cover construction will be initiated in accordance with the requirements of 9 VAC 20-80-250E when the following pertain".	22	250C2e	Provided.
DAA	Clarify that the term "debris from emergency cleanup operations" is only vegetative waste.	10	250C8b	Not provided. This term is not limited to vegetative waste. This section is derived from the federal requirement in 40 CFR Part 257.3-7.

NRRA	Analysis of leachate should be used to determine those constituents to analyze for in groundwater monitoring.	2	250D1b	Not provided. The groundwater program for sanitary landfills is required to be consistent with the federal requirement of 40 CFR Part 258. Leachate discharge monitoring is inconsistent with that program. In addition, typically all parameters are not monitored for leachate discharge. Leachate is not a good indicator of what is happening with the groundwater at a site.
USAW	Include the deleted section regarding "the director will consult with the state water control board" prior to imposing more stringent requirements.	14	250D2c	Not provided. The director is the director of DEQ not the director of the waste division as previously required so this statement is no longer meaningful. The director of DEQ consults with the director of the water division as necessary to make any determinations.
MR	"appropriate maps" to include with final boring logs should be further clarified.	7	250D3d	Provided
MR	A timeframe should be provided for log and maps to be "sent to the department" .	8	250D3d	Provided. The term is now linked to submissions discussed in this section . Wells and maps are to be submitte 44 days from well installation.
MR	The regulations do not indicate that plans have to be submitted prior to the installation of monitoring wells.	9	250D3f(3)	Not provided. The plans are required to be submitted in accordance with the timeframes discussed in 9 VAC 250D3d and are not required prior to well installation. Submission of plans prior to installation of the groundwater monitoing wells is inconsistent with federal requirements in 40 CFR part 258.
JE1, JE2	Groundwater direction and flow should be determined "at least annually"	23	250D4c	Not provided. The suggested modification is not consistent with the frequency provided in the federal requirements of 40 CFR Part 258.
MR	Provide a timeframe such as 30 days after receipt of laboratory analysis.	11	250D4h(2)	Not provided. The 30 day timeframe provided in the regulation is clear as written.
JE1, JE2	A regulatory reference here appears to be incorrect.	24	250D5c(1)	Provided. The citation has been corrected.

JE1, JE2	Independent samples cannot be collected on the same day, so recommend "sampling event" be changed to "during the first 18 months".	25	250D5c(2)	We agree that independent samples cannot be collected the same day, but feel that the 18 months suggested is excessive. 180 days was provided.
JE1, JE2 MR	editorial Why does the director have to approve the document submitted to demonstrate that a source other than the landfill is causing contamination. It is not clear that these have been submitted for the directors review. Variances are typically used for this purpose.	26 12	250D5c(3) 250D5c(4)	Provided. Not provided. The director of an approved state has the ability to approve demonstrations of alternate sources in accordance with federal requirements 40 CFR Part 258 without a variance procedure. This is consistent with federal regulation.
USAW	a sentence should be added which states "If after 90 days, or extended by the director, a successful demonstration is not made, the owner shall initiate an assesment monitoring program as required in 9 VAC 20-80-250D6.	15	250D5c(4)	Provided.
JE1, JE2	change to "If, after 90 days or longer as approved by the director, a successful demonstration is not made and approved, the owner or operator shall initiate an assessment monitoring program as required in 9 VAC 20-80-250D6".	27	250D5c(4)	Provided, but not in the specific manner suggested. Changed as suggested in USAW15
MR	Is there evidence that contamination has occurred during assesment monitoring? The regulations should include how to determine the extent of contamination in the regulations.	13	250D6(a)1	Provided. We agree that this modification in assessment monitoring is not consistent with federal requirements and eliminates a redundant requirement. Preparation of nature and extent of contamination are well documented in EPA guidance.
JE1, JE2	Delete requirements to determine the rate and extent of migration during assessment monitoring.	28	250D6a	Provided.
USAW	Upgradient groundwater monitoring wells should be exempt from assessment monitoring sampling and analysis	16	250D6b	Not provided. Sampling and analysis is necessary to perform statistical analysis. In addition, the suggested change would be inconsistent with the federal requirements of 40 CFR part 258.

JE1, JE2	editorial	29	250D6b	Provided.
JE1, JE2	Change "complete APPENDIX 5.1.." to "initial APPENDIX 5.1 analysis." Insert "detected" before "constituents" in the sentence ending "... for the detected constituents." In addition, after this sentence, insert "Background shall be established no later than two years after implementing an assessment monitoring program."	30	250D6b	"detected" has been inserted as suggested. However, the suggestion on establishing background is not consistent with the federal program in 40 CFR Part 258 and is not provided.
USAW	Recommend modifying required 60 days to 90 days to establish background concentrations and GPS. Additional time is needed.	17	250D6d(3)	Provided.
USAW	Recommend modifying required 60 days to 90 days to establish background concentrations and GPS. Additional time is needed.	17	250D6d(4)	Provided.
JE1, JE2	Change 60 to 90 days to provide additional time to establish groundwater protection standards.	31	250D6d(4)	Provided.
JE1, JE2	Move language pertaining to characterization of the nature and extent of contamination to the corrective action program.	32	250D6g	Not provided. Including the characterization clarifies the immediate nature of the characterization and is consistent with the groundwater program provided in 40 CFR Part 258. The monitoring provided here is intended to support the corrective action program.
JE1, JE2	Change to "(1) Shall proceed with the activities required pursuant to 9 VAC 20-80-310; and (2) Shall continue monitoring in accordance with the requirements of 9 VAC 20-80-250D until the director approves the corrective action plan submitted pursuant to 9 VAC 20-80-310; or"	33	250D6g(1)	Not provided. Language was not moved to section 310 for the reasons listed above in response to JE32. Suggested modification is not consistent with the federal program of 40 CFR Part 258.

MR	Why does the director have to approve an alternate source demonstration. It is not clear that these have been submitted for the directors review.	14	250D6g(2)	Not provided. The director of an approved state has the ability to approve alternate source demonstrations in accordance with the federal requirement in 40 CFR Part 258 without a variance procedure. This is consistent with federal regulation.
JE1, JE2	editorial	34	250D6g(2)	Not provided because previous 2 changes were not made.
MR	"recent groundwater data" why not say groundwater data from the previous calendar year.	15	250D8a(2c)	Provided.
USAW	Could a high reading of the gw table due to a unusual weather event cause redesign of a liner system?	18	250D8a(2c)	Not provided. Although anything is possible, the scenario described is not likely.
DAA	Does the amendment of a closure plan that was part of an approved facility permit obtained after 1988 require a permit modification under these provisions.	11	250E3	Response. No, any such modification can be placed in the facility's operational record. A review is required prior to implementing the plan.
DAA	Clarify that submission of a closure plan 180 days is prior to construction activities for closure. Also the department should respond in 60 days to allow time for rebidding the project	12	250E3f	Partially addressed. Clarification is provided that submission to the Department is required 180 days prior to construction activities. If the facility is designed in accordance with the regulations any rebidding is unnecessary. Construction schedule should allow for review by the department.
JE1, JE2	delete second sentence and replace with "The department shall notify the facility owner in writing, within 30 calendar days, whether the closure is satisfactory. If the inspection results are unsatisfactory, the department shall request the required actions or other steps necessary to bring the closure into compliance with these regulations.	35	250E6	Not provided. Review of the closure documentation and site inspection may take longer than 30 days. However, language softened in this section regarding departments ability to require additional work.
COH	Object to provision for a 10 year post closure period only after professional engineers certification. 10 year post closure should end in Oct 2003.	2	250E7	The post closure period of 10 or 30 years is dependent on when the facility stopped accepting waste, not necessarily when the facility was capped.

COL	Object to provision for a 10 year post closure period only after professional engineers certification. 10 year post closure should end in Oct 2003	1	250E7	The post closure period of 10 or 30 years is dependent on when the facility stopped accepting waste, not necessarily when the facility was capped.
COG	Object to provision for a 10 year post closure period only after professional engineers certification. 10 year post closure should end in Oct 2003	1	250E7	The post closure period of 10 or 30 years is dependent on when the facility stopped accepting waste, not necessarily when the facility was capped.
DAA	Recommend replacing the evaluation of the landfills potential for harm to human health and the environment be accomplished by an "independent qualified groundwater scientist" rather than "a professional engineer.	13	250F6	Not provided. The suggestion is not consistent with 10.1-1410.2B of the Code of Virginia, which requires a professional engineer evaluation.
JE1, JE2	editorial	36	250F6	Provided.
USAW	The regulation should allow the acceptance of white goods, but not allow disposal prior to CFC removal.	19	260	Provided.
JE1, JE2	After "not restricted" add "in a manner that will increase the flood height greater than one foot."	37	260A1	Not provided. It is unclear why this change is necessary. It is possible the department would allow this situation as long as the waste mass was protected from washout, but the existing language allows the department more flexibility in this area.
USAW	It is overly burdensome to require leachate storage to have setbacks from the highway right of way. Sanitary sewers occur within highway right of way.	20	260A5	The requirements of this section are adequate. Not provided. This has been modified to be consistent with the setback requirements for sanitary facilities. The requirements for sanitary facilities are not new. Leachate is still considered waste and is subject to those setbacks. Variances are available for those facilities with appropriate justification. Leachate is not regulated when it enters a sewer system to a treatment plant.

DAA	Commitment to provide cover materials should be removed from the section and the section should be modified to assure that cover material would be available,	14	260A8b, 270A7b	Not provided. The regulation does not specify or imply an indefinite commitment to provide cover materials. Flexibility is already provided in this section allowing amendment to the permit if different sources for materials are located.
HSG	The number of benchmarks should be defined by the engineer/owner, not the regulations	3	260B10	Response to statement. We believe a minimum of two points is appropriate because engineering control is consistent for all waste disposal facilities. An engineer/owner can certainly have more.
JE1, JE2	editorial	39	260B10	Provided.
JE1, JE2	Change "compacted clay" to "compacted soil"	40	260B14a	Provided.
JE1, JE2	Change "clay" to "soil"	41	260B14e(2)	Provided.
JE1, JE2	Insert "or equivalent design"	42	260B14e(3)	Not provided. Equivalent design would be allowed with the approval of a variance. Alternative designs have previously been approved by the department.
USAW	The confirmation of the permeability of the soil liner using a insitu test method will slow down the landfill development unnecessarily.	21	260B17c(4)	Provided. The section has been clarified so that it is not misinterpreted. The test is not on the soil liner but on a test pad for the soil liner.
JE1, JE2	Change to "Confirmation of the permeability of the soil liner shall include the use of in situ testing methods"	43	260B17c(4)	Provided, but not in the manner suggested. The section has been modified for clarity.
HSG	Does "surface water runoff" refer to runoff entering or leaving the disposal area.	1	260B6	Response to question. The term refers to the diversion of runoff, originating from non-waste areas, around waste areas. This is clear in the context of the regulation.
HSG	This section has been modified to reverse policy regarding landfill gas monitoring. A perimeter monitoring network is now required rather than a contingency plan.	2	260B9	Response to statement. This is correct, This modification will require the facility to provide information regarding gas management at the time of permit application.

JE1, JE2	The proposed revisions to the paragraph should be stricken. Gas management should not be required unless it is a problem at the facility.	38	260B9	Not provided. A design is already required for all facilities. If justification cannot be provided, a minimum of monitoring will be required to determine if gas is or is not a problem at the facility. No mechanism to determine if there is a problem was provided by the regulations previously. Several facilities have experienced problems with LF gas and a demonstration during the design process or monitoring by the facility is more protective than the current standard.
JE1, JE2	Add after "facility permit" "Alternate materials of an alternate thickness may be approved by the director if the owner or operator demonstrates that the alternate material and thickness control fires without presenting a threat to human health and the environment"	44	260C11b	Not provided. An approval of material and thicknesses of materials used as a fire break can be performed under the provisions of the current regulations with the approval of a variance.
JE1, JE2	Change to "Upon completion of disposal operations, or when operations are to be suspended for six months or more, final cover construction will be initiated in accordance with the requirements of 9 VAC 20-80-260E." editorial	45	260C11d	Provided.
JE1, JE2		46	260C13	Provided.
USAW	Include deleted section regarding "the director will consult with..."	22	260D2c	See response to USAW 14
MR	the information in this section could be modified to match the requirements for sanitary landfills in part 250	16	260D3a	Not provided. This section has been simplified in comparison to 9 VAC 20-80-250, because 250 is mandated by federal regulation and 260 is not.

MR	Groundwater monitoring requirements for CDD landfills should be similar to requirements for sanitary landfills.	17	260D3a	Not provided. The groundwater monitoring requirements for CDD and Industrial landfills have been simplified in comparison to those for sanitary landfills in 9 VAC 20-80-250, because 250 is mandated by federal regulation and 260 is not. More flexibility is provided in the program that is not mandated.
MR	Groundwater monitoring requirements for all landfills should be placed in Appendix 5.6.	18	260D5	Not provided. The requirements in Appendix 5.6 are for facilities that are not subject to the federal program. Separating the requirements for the state program into an appendix makes it clear that these requirements can be used for CDD and industrial landfills as well as those sanitary landfills not subject to federal monitoring requirements.
HSG	This section requires facilities to monitor in accordance with Appendix 5.6 and Appendix 5.6 says you can elect to monitor under 5.6.	4	260D5	Provided. The regulation has been modified to correct the discrepancy.
JE1, JE2	Delete second sentence and replace with "The department shall notify the facility owner in writing, within 30 calendar days, whether the closure is satisfactory. If the inspection results are unsatisfactory, the department shall request the required actions or other steps necessary to bring the closure into compliance with these regulations"	47	260E5	Not provided. Review of the closure documentation and site inspection may take longer than 30 days. The language has been softened in this section regarding departments ability to require additional work.
HSG	This section requires editorial corrections.	5	260F4	Provided.
HSG	It would be difficult for a professional engineer (PE) to evaluate the post closure at a landfill at a reasonable cost and risk from a liability standpoint. This would perpetuate post closure forever.	6	260F5	Not provided. This section is consistent with 10.1-1408.2B of the Waste Management Act which requires PE evaluation of the landfills potential for harm if monitoring were discontinued.
JE1, JE2	editorial	48	260F5	Provided.
JE1, JE2	change "compacted clay" to "compacted soil"	49	270B14a	Provided.

JE1, JE2	replace "clay" with "soil" and insert "augmented"	50	270B14e(2)	Provided.
JE1, JE2	The paragraph should be stricken a gas venting or monitoring program should not be required unless there is a gas problem.	51	270B18	Not provided. A design is already required for all facilities. If justification cannot be provided, a minimum of monitoring will be required to determine if gas is or is not a problem at the facility. No mechanism to determine if there is a problem was provided by the regulations previously. Several facilities have experienced problems with LF gas and a demonstration during the design process or monitoring by the facility is more protective than the current standard.
JE1, JE2	editorial	52	270B19a(1)	Provided.
JE1, JE2	Change to "Confirmation of the permeability of the soil liner shall include the use of in situ testing methods"	53	270B19c(4)	Provided, but not in the manner suggested. The section has been modified for clarity.
DOM	Intermediate cover should not be required for facilities receiving coal combustion by-products.	4	270C12d	Not provided. Erosion and washout are likely if intermediate cover timeframes are removed.
DOM	Allowances for final cover requirements should be made for facilities that are removing ash for beneficial use	5	270C12d	Provided.
JE1, JE2	Revise sentence to read "Final cover construction will be initiated in accordance with the requirements of 9 VAC 20-80-250E when the following pertain"	54	270C12e	Provided.
DOM	A longer timeframe of 180 days should be allowed for placement of final cover after final elevation is reached. Because of beneficial use of these materials.	6	270C12e(2)	Provided.

DOM	A stockpile of daily cover should not be required for facilities receiving coal combustion by-products.	7	270C16	Not provided. A three day supply of material is only required if the facility is required to place daily cover. Typically, a CCB facility would not be required (but may choose to) to maintain a three day stockpile unless another waste stream was being received.
DOM	Beneficial use and removal of ash should be recognized by the regulation.	8	270C20	Provided in section 270C12d.
MR	Groundwater monitoring requirements for all landfills should be placed in Appendix 5.6.	19	270D3a	Not provided. The requirements in Appendix 5.6 are for facilities that are not subject to the federal program. Separating the requirements for the state program into an appendix makes it clear that these requirements can be used for CDD and industrial landfills as well as those sanitary landfills not subject to federal monitoring requirements.
MR	Groundwater monitoring requirements for industrial landfills should be similar to requirements for sanitary landfills.	20	270D3c	Not provided. This section has been simplified in comparison to 9 VAC 20-80-250, because 250 is mandated by federal regulation and 270 is not.
MR	Determination of flow rate and direction should be required at a uniform frequency with sanitary landfills which require the determination every year.	21	270D4c	Provided.
DOM	A landfill that is considered a beneficial use site should require a cap consistent with the requirements of 9 VAC 20-85-100.	11	270E1b(4)	Not provided. A landfill cannot be considered a beneficial use site. However, additional flexibility is provided. Alternate caps can be approved.
DOM	180 days should be allowed to begin closure activities.	12	270E3a	Not provided. 30 days is consistent with requirements for sanitary landfills (this is required under federal regulation) and the closure for a industrial facility is not as complex as the closure for a sanitary facility.
DOM	Two years should be allowed to complete closure activities.	13	270E3a	Not provided. This is consistent with the closure timeframes provided for other landfills including sanitary which has a more difficult closure standard. Two years to close a facility is

excessive.

AEP	Facilities should not be required to be updated when the regulations change. An approved closure plan should be allowed to suffice.	6	270E4a	Not provided. In most cases facilities will not be required to update documents and facility design unless noted in the regulations. Facilities will, however be required to abide by the new provisions and all other provisions of the regulation. See provisions of 9 VAC 20-80-60C
JE1, JE2	Delete second sentence and replace with "The department shall notify the facility owner in writing, within 30 calendar days, whether the closure is satisfactory. If the inspection results are unsatisfactory, the department shall request the required actions or other steps necessary to bring the closure into compliance with these regulations"	55	270E5	Not provided. Review of the closure documentation and site inspection may take longer than 30 days. The language has been softened in this section regarding departments ability to require additional work.
JE1, JE2	editorial	56	270F5	Provided.
JE1, JE2	Revise the first sentence to begin "owners and operators of solid waste disposal facilities..."	57	280	Provided.
USAW	Recommend requiring probe pressure readings on a gas monitoring probe only if methane is found during the monitoring event.	23	280D2	Not provided. Probe pressure readings are standard operating procedure as recommended in SWANA and other guidances. In addition movement of gas is dependent on pressure.
DAA	Clarify that minor amendments are required for corrective action and gas remediation.	15	280E	Provided. A statement indicating an amendment is required for gas management has been provided. In addition, clarification has been provided that establishing groundwater protection standards is not an amendment, but placed in operating record and submitted to the director.
JE1, JE2	The paragraph should remain unchanged. Leachate quantity estimates should be provided.	58	290A1	Provided.

JE1, JE2	Change to "all detected 5.1 constituents"	59	310	Not provided. Establishing groundwater protection standards (GPS) for all 5.1 constituents up front prevents submissions every time a new appendix 5.1 constituent is detected. This is a more efficient way of establishing the GPS.
JE1, JE2	Clarify section on corrective action and require specific directors determinations, a specific suggestion has been provided	60	310A	Not provided. The study of the nature and extent of contamination occurs in this regulation in the same timeframe as provided in 40 CFR Part 258. The suggested modifications would be inconsistent with the federal program.
JE1, JE2	update citations	61	310A4	Not provided. This comment is based on the assumption that the department had incorporated the suggested text provided in comment JA60. That text has not been incorporated.
HSG	Public notice for corrective action is more appropriate than public meeting.	7	310A5	Provided. The procedure for a public notice of the meeting have been provided.
JE1, JE2	update citations	62	310A5	Not provided. This comment is based on the assumption that the department had incorporated the suggested text provided in comment JA60. That text has not been incorporated.
SCS	Exposure/risk demonstration be allowed earlier in the corrective measures process, allowing dept to make quicker decisions and eliminating need for corrective measures study.	1	310B5c(2)	Not provided. This could delay the implementation of corrective action. We feel that this demonstration is appropriately placed in the corrective action process.
JE1, JE2	update citations	63	310B6	Not provided. This comment is based on the assumption that the department had incorporated the suggested text provided in comment JA60. That text has not been incorporated.
JE1, JE2	update citations	64	310C1	Not provided. This comment is based on the assumption that the department had incorporated the suggested text provided in comment JA60. That text has not been incorporated.
JE1,	editorial	65	310C1a(3)	Provided.

JE2					
JE1, JE2	update citations	66	310C1b		Not provided. This comment is based on the assumption that the department had incorporated the suggested text provided in comment JA60. That text has not been incorporated.
JE1, JE2	Solid wastes managed under a remedy should be "remediation wastes" also update citations in the section.	67	310C4		Not provided. This comment is based on the assumption that the department had incorporated the suggested text provided in comment JA60. That text has not been incorporated.
JE1, JE2	update citations	68	310C5		Not provided. This comment is based on the assumption that the department had incorporated the suggested text provided in comment JA60. That text has not been incorporated.
JE1, JE2	Delete the second sentence and replace with "The department shall notify the facility owner in writing, within 30 calendar days, whether the closure is satisfactory. If the inspection results are unsatisfactory, the department shall request the required actions to bring the closure into compliance with these regulations"	73	340		Not provided. Review of the closure documentation and site inspection may take longer than 30 days. The language was softened in this section regarding departments ability to require additional work.
USAW	Clearing waste away at transfer stations at the end of the day is not necessary. The regulation should not apply to existing operations that are operating 24 hours a day.	32	340D1		Not provided. This requirement has been reworded for clarity. The intent is identical to the wording of the existing regulations. Variaces previously approved for this requirement allowing for 24 hour operation will still be in effect.
JE1, JE2	Delete the second sentence and replace with "The department shall notify the facility owner in writing, within 30 calendar days, whether the closure is satisfactory. If the inspection results are unsatisfactory, the department shall request the required actions to bring the closure into compliance with these regulations"	74	360		Not provided. Review of the closure documentation and site inspection may take longer than 30 days. The language was softened in this section regarding departments ability to require additional work.

USAW	Perimeter fencing around a facility should not be required if natural barriers are present.	33	360C10	Provided.
JE1, JE2	Delete the second sentence and replace with "The department shall notify the facility owner in writing, within 30 calendar days, whether the closure is satisfactory. If the inspection results are unsatisfactory, the department shall request the required actions to bring the closure into compliance with these regulations"	75	380	Not provided. Review of the closure documentation and site inspection may take longer than 30 days. The language was softened in this section regarding departments ability to require additional work.
JE1, JE2	Delete the second sentence and replace with "The department shall notify the facility owner in writing, within 30 calendar days, whether the closure is satisfactory. If the inspection results are unsatisfactory, the department shall request the required actions to bring the closure into compliance with these regulations"	76	400	Not provided. Review of the closure documentation and site inspection may take longer than 30 days. Softened the language was softened in this section regarding departments ability to require additional work.
JE1, JE2	editorial	77	450C4b(2)	Provided.
JE1, JE2	editorial	78	450C4c(2)	Provided.
JE1, JE2	editorial	79	450C4c(6)	Provided.
JE1, JE2	editorial	80	450D3	Provided.
JE1, JE2	editorial	81	460B	Provided.
JE1, JE2	editorial	82	460C	Provided.

JE1, JE2	Delete the second sentence and replace with "The department shall notify the facility owner in writing, within 30 calendar days, whether the closure is satisfactory. If the inspection results are unsatisfactory, the department shall request the required actions to bring the closure into compliance with these regulations"	83	470E5	Not provided. Review of the closure documentation and site inspection may take longer than 30 days. The language was softened in this section regarding departments ability to require additional work.
JE1, JE2	Delete the entire paragraph and replace with "Any lateral expansion." The second and third sentences in the draft Amendment 2 are unclear; therefore, we request that if the department chooses to keep the language that we recommend deleting, that an explanation be provided.	84	480	Not provided. The language is provided to require local government certification for all expansions, and to prevent a full permit fee for expansions due to gas and groundwater remediation. The section has been modified to clarify these concepts.
DOM	Provide a permit by rule for captive industrial facilities.	15	485A4	Not provided. Permits-by-rule are reserved for those facilities where specific standards can be set forth. Although design standards for landfills can be set forth, site specific geology impacting the monitoring of groundwater require a technical review that is not possible under permit by rule procedures. Closure plans, post closure plans and monitoring requirements are also site specific for landfill facilities.
JE1, JE2	editorial	85	485A4f	Provided.
JE1, JE2	editorial	86	485A4g	Provided.
JE1, JE2	editorial	87	500B5	Provided.
JE1, JE2	delete "property"	88	510C2	Provided.
JE1, JE2	Other boring techniques should be allowed see suggested change.	89	510E1e	Provided.

JE1, JE2 DOM	The closure plan must also be approved by the department. Eliminate requirement for 90 day requirement for non-putrescible waste pickup	90 2	560B 60D6b	Provided, but not in the manner suggested. The section has been modified for clarity. Not provided. A facility may apply for a Variance to the regulation if an alternate timeframe at the facility is protective of human health and the environment.
JE1, JE2	Change "... groundwater protection level within a reasonable period of time" to "... groundwater protection standard in accordance with the schedule established under 9 VAC 20-80-310A.4 or 9 VAC 20-80-310B.4."	91	620E8	"Standard" has been added to the section. However, the remainder of the comment is based on the assumption that the department had incorporated the suggested text provided in comment JA60. That text has not been incorporated.
NAVY	Virginia regulation of PCB waste should be consistent with federal requirements in 40 CFR 761	1	650	Provided. The section has been modified to be more consistent with federal requirements.
USAW	Would split, shredded, and chipped tires have to meet the requirements for the storage of tires, please clarify.	35	670C	Response. This section is intended to regulate the storage of whole tires. These criteria could be used as a guide for the storage of other tire derived materials.
USAW	The regulation requires opening both ends of a drum. It is not necessary to open both ends of a drum.	36	680	Not provided. Opening both ends allows a facility operator to easily ensure that the drum is empty.
USAW	Since benzene is the only material with a hazardous limit in the BTEX analysis we suggest only analyzing for benzene.	37	700C1c	Not provided. These criteria are used for the detection of petroleum products, not hazardous constituents.
DOM	A timeframe should be provided for the department/director response to variance applications. 90 days is recommended.	16	790B	Not provided. A variance could be for anything in the regulations. Depending on the complexity of the issue, variances could take vastly different amounts of time to review. Internal department procedures are designed to provide for a timely review. Reviews of variances associated with permits are usually approved concurrently with the permit. In addition, 9 VAC 20-80-50C requires directors to render decisions in a timely manner.

The department will render all decisions in a manner consistent with the Administrative Process Act.

JE1, JE2	The open dump evaluation criteria in App 4.1 is not referenced in part 4. Recommend deleting App 4.1.	16	App 4.1	Not provided. Open dump evaluation is used by department staff and is provided in the appropriate section of regulation.
UOSA	The table as provided in Appendix 5.1 is confusing, The headings in the table should be more specific.	3	App 5.1	Provided. Clarification notes have been provided.
JE1, JE2	"notes" at the heading in Appendix 5.1 have either been omitted or footnotes need to be eliminated	69	App 5.1	Provided.
JE1, JE2	delete footnote #1	70	App 5.2	Provided.
JE1, JE2	Change pql to eql and update and clarify statistical procedures as indicated.	71	App 5.4	PQL is clearly defined in the regulation in Appendix 5.4.B5 and does not necessarily reflect/represent the PQL presented in SW846. According to the regulation, the PQL is the lowest concentration level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions. The suggested language is applicable to some statistical methods listed in Appendix 4.4, but not all statistical methods. The language provided in the regulation does provide the flexibility to compare values in the manner suggested. However, including the suggested language into the regulation would limit facilities from using an alternate statistical method as provided in Appendix 5.4 .I.5

USAW	The 15 metals listed in App 5.5 are not usually found at levels making them good indicators since they are variable, can be affected by the landfill, and the can cause false positives.	29	App 5.5	Not provided. The statement provided is true, but the constituents mentioned are also found in leachate from waste.
USAW	Recommend replacement of metals listed in Appendix 5.5 with indicator parameters chloride, total alkalinity, total dissolved solids etc.	30	App 5.5	Not provided. The recommendation is inconsistent with the federal requirements of 40 CFR part 258. In addition. these additional parameters would place additional burden on the facility. Under an alternate source demonstration, these parameters may be useful and a facility is not prevented from monitoring for these constituents.
USAW	Verified statistically significant increase (SSI) should trigger assessment requirements including alternative source demonstrations.	31	App 5.5	Not provided. Under the provisions for statistically significant increases during detection monitoring an alternate source demonstration is already allowed but not required.
MR	After an evaluation of the static groundwater surface elevation an evaluation is performed to determine if the requirements for location of the wells are satisfied. And modification must be made to the well locations. Provide a timeframe for the modification .	22	App 5.6	Provided.
DOM	The term "compliance period" used in this section should be deleted. The use is inconsistent with the intent of the corrective action program.	14	App 5.6	Provided.
UOSA	Recommends the use of flow charts to describe the State groundwater monitoring program..	4	App 5.6	Not provided. Language has been change in a effort to clarify procedures.

JE1, JE2	Update Appendix 5.6 as indicated.	72	App 5.6	Not provided. The section was completely rewritten by the commenter. Many comments reworded the language of the section without changing the meaning or moved sections to clarify certain issues. Most of the original language of the section has been retained, but changes to the section have been made as a result of the comment. A demonstration of an alternate source can be made during Phase I monitoring. A potentiometric surface map is required to show the static groundwater surface on an annual basis. Several areas of Appendix 5.6 that reference statistics, sampling, or wells have been clarified as indicated in the comment. The change was to dramatic to implement in its entirety.
DOM	After initial analysis for parameters in appendix 5.1, only analyze for constituents detected for wells in Phase III where the constituents were detected	10	App 5.6.D.6	Not provided. The recommendation is already provided for in the regulation under sampling for Phase III
DOM	After an initial analysis for parameters in appendix 5.5, a facility can analyze leachate. Subsequently the facility should only analyze for constituents detected in the leachate and only for wells in Phase II where the constituents were detected.	9	App 5.6D	Not provided. Leachate is too variable to be a good indicator of what may appear in groundwater. For specific circumstances which can be justified, variances are available under the provisions of Part 9 of the VSWMR.
UOSA	It is unclear what "solid waste constituents" means. Does it refer to App 5.1 or App 5.5 lists?	5	App 5.6D1a, App 5.6D1b	Not provided. Depending on the phase of monitoring a facility is in the constituents vary. Solid waste constituents refer to the constituents that are applicable to that phase of monitoring.
COH	The term "compliance period" used in this section should be based on risk rather than the timeframe proposed in section E2.	1	App 5.6E2	Provided. The term compliance period has been eliminated and the time for monitoring has been clarified based on the time for corrective action or the time left is post closure care.

COL	The term "compliance period" used in this section should be based on risk rather than the timeframe proposed in section E2.	2	App 5.6E2	Provided. The term compliance period has been eliminated and the time for monitoring has been clarified based on the time for corrective action or the time left is post closure care.
COG	The term "compliance period" used in this section should be based on risk rather than the timeframe proposed in section E2.	2	App 5.6E2	Provided. The term compliance period has been eliminated and the time for monitoring has been clarified based on the time for corrective action or the time left is post closure care.
USAW	The requirement for prior approval by the director of a permit amendment imposes burden on property negotiations	34	App 7.4A6	Not provided. The director approval is required to amend a permit. The regulation does not imply that the directors approval is necessary during sensitive property negotiations. Additional land acquired is not considered part of a facility permit until the director approves an expansion.
JE1, JE2	add "analytical parameters"	92	App 7.4C2	Provided. However the change was made to 7.2C4 which is the appropriate section.
JE1, JE2	delete	93	App 7.4C4	Not provided. The added text provides necessary clarification.
JE1, JE2	delete	94	App 7.4C4a	Not provided. The added text provides necessary clarification.
JE1, JE2	Change citation to C.4	95	App 7.4C4b	Not provided. The added text provides necessary clarification.
JE1, JE2	Make corrective action a minor permit amendment.	96	App 7.4C6b	Not provided. Public comment for a corrective action program is appropriate.
JE1, JE2	Delete 7.4 D closure plans are already addressed in 560B	97	App 7.4D	Not provided. Although updated closure plans can be placed in the operating record during the active life of the facility, closure plans still require approval in accordance with 9 VAC20-80-250E3f, 260E2f, and 270E2f.

JE1, JE2	Suggest making final cover plans minor amendments at least in some cases if comment 97 is rejected	98	App 7.4D2	Not provided. Modifications that are made with materials that are engineering equivalent are considered minor. Changes to the cap design merit public participation and will be considered major amendments. A facility may still have the option to petition for a minor amendment.
BK	Supports modifications of the regulations related to composting.	1	general	Acknowledged
MR	Where SW-846 is referenced the regulation should say SW-846 third edition as updated.	10	general	Not provided. The regulation already states this in the definition of "SW-846" in 9 VAC 20-80-10.
USAW	Statistical method ANOVA is rarely effective, and can result in a high degree of false negatives and false positives depending on it's use.	24	general	Not provided. Although this may be true in some cases, the regulations require appropriate statistical methods to be used. In some situations, a given method may not be appropriate for the data collected.
USAW	The existing regulations already allow the most useful statistical methods.	25	general	Not provided. The proposed language of the regulation provides more flexibility than the existing regulation and identifies some methods which may be used, but certainly not all methods.
USAW	Non-statistical methods for evaluating groundwater data such as graphical methods, Stiff, and Piper plots should be considered by the department in lieu of subtitle D statistics	26	general	Not provided. Appendix 5.4 is applicable when statistical evaluation is required by the regulations. Non-statistical methods may be used for situations where a statistical analysis is not mandated.
USAW	Guidance for statistical methods for assesment and corrective action should be established including the use of the LCL and UCL	27	general	Not provided. The current language of the regulation provides more flexibility than the methods suggested in the comment.
USAW	The limit of quantification should be the limit of detection of constituents in groundwater.	28	general	Not provided. It is unclear where the detection limit should be substituted with the quantification limit. However, the use of the quantitation in lieu of a detection limit is based on the statistical method chosen as well as the data set.

USAW	Do regulations supercede current permit requirements?	38	general	The regulations have been modified in 9 VAC 20-80-60 C to clarify this issue. Existing facilities are required to comply with modifications to the regulations.
DOM	Recomends including provisions for permit by rule for captive industrial facilities or expand regulations for the management of coal combustion by-products (CCB).	1	general	Not provided. CCB are a non-hazardous industrial waste. Regulations exist for disposal facilities handling this material. Numerous exemptions exist for various uses of the material , and the CCB regulations provide further exemptions. Various exemptions are available in the Code of Virginia for captive industrial landfills. We do not believe additional regulations specific to CCB are necessary to accomplish the goals of the suggested modification.
AEP	Supports provisions for an independent CQA officer	1	general	Acknowledged.
AEP	Supports removing sodium from App. 5.5 constituents	2	general	Acknowledged.
AEP	The terms "captive industrial landfill" or "captive industrial waste landfill", should be used consistently throughout the regulation	3	general	Provided.
DAA	CQA officer should be different individual than the design engineer. This should be clarified in the regulation 250B18m 250E5, 260B17, 260E4, 270B19, 270E4	7	general	Not provided. The CQA officer is responsible for oversite of work performed by the facility contractor. He needs to be independent of the owner and the construction contractor. No conflict exists if he is the design engineer.
DAA	Supports changes, Groundwater program, corrective action, permitting and appendix 7.4	16	general	Acknowledged.
NRRA	Closed solid waste management facilities should require a certified operator.	4	general	Not provided. Certification of facility operators are not a function of this regulation. Daily presence of a facility operator at a closed disposal site would be excessive.