

APPENDIX A

STATE OF VIRGINIA
BUREAU OF SOLID WASTE MANAGEMENT

DOCUMENTATION REQUIREMENTS FOR A LANDFILL PERMIT APPLICATION

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This appendix uses State of Virginia requirements for a landfill permit application as one example of the information required to get a permit. The appendix discusses site information, operating plans and financial documentation required to get a landfill permit. Although other state requirements may differ slightly in an item by item comparison, the Virginia example provides guidelines on the level of detail needed in most states.

STATE OF VIRGINIA BUREAU OF SOLID WASTE MANAGEMENT

DOCUMENTATION REQUIREMENTS FOR A LANDFILL PERMIT APPLICATION

The Bureau of Solid Waste Management will consider applications for permits for three types of sanitary landfills; general sanitary landfills, construction and demolition debris landfills and industrial waste landfills. In order for an application to be considered by the bureau, the following shall accompany and document the application. These documents will be incorporated in the permit and deviation from the permit shall not be allowed except by amendment of the permit. A permit application not fully documented may be rejected, and the bureau reserves the opportunity to require further clarification or detail for any item during the application review process. Four copies of all documents are required to be provided to the bureau.

1. Essential site documentation includes:
 - a. Copies of the latest United States Geological Survey topographic and geologic maps encompassing the area of the site and adjacent land within 2500 feet of the property boundary of the site in all directions. The site shall be clearly outlined and labeled. Maps shall be of the 7-1/2 minute quadrangle series.
 - b. Fifteen mile radius map. This vicinity map shall show the site outline and outstanding features within that radius to include, at least, the following:
 - (1) Boundaries of any city, county or town and the location of any significant incorporated areas or communities;
 - (2) All surface water streams, rivers, or significant water bodies;
 - (3) All federal, state, city, county or town roads;
 - (4) All public water supply surface intakes, treatment facilities, reservoirs or wells;
 - (5) All railroads, wastewater treatment facilities, and existing solid waste management facilities.

- c. A near vicinity map, having a scale of 250 feet or less to 1 inch and containing the information described in the preceding item for a radius of 2500 feet in all directions from the site boundaries and the following:
- (1) All homes, building or structures;
 - (2) The 100-year and 500-year flood plain, where they pass through the map area, or otherwise, a note indicating the expected flood occurrence period for the area;
 - (3) Existing land uses and zoning classification;
 - (4) All water supply wells, springs or intakes, both public and private;
 - (5) All utility lines, pipelines or land based facilities (including mines and wells); and
 - (6) All parks, recreation areas, dams, historic areas, wetlands areas, monument areas, refuges, unique natural areas or similar features.
- d. Copy of lease, deed (showing page and book location) or certification or ownership of the site. The department will not consider as an applicant for a permit any person who does not demonstrate legal control over the site. A documentation of an option to purchase will be considered as a substitute for a deed; however, the true deed must be provided to the department before construction at the site begins.
- e. Site hydrogeologic and soils report shall include, as a minimum, the following:
- (1) Boring records and analyses from properly spaced borings in the facility portion of the site, with no less than five borings on any site and no less than one boring per five acres of facility. Boring shall extend for twenty feet below the elevation of the contemplated bottom of the facility or to the bedrock. In carbonant bedrock, karst areas, covered karst areas, areas of possible collapse or other problem areas, appropriate corings into the rock may be necessary.
 - (2) Complete description of the soil units on the site, including tests of permeability (the results of at least three in site tests for important units). All corroborating and supporting data for permeability tests shall also be submitted. In site permeability tests data includes test method, calculations, natural moisture, attenberg limits, natural unit weight, method of sampling, etc.; remolded permeability tests require a proctor comparison test (ASTM-D-698). Those results, plotted, along with percent comparison of the test sample and the data listed for the site permeability tests are needed for accurate interpretation of the results.

- (3) Water table elevations, direction and estimated rate of ground-water flow and similar information on the hydrogeology of the site. All data shall be submitted with calculations.
 - (4) A cataloging and description of aquifers, geological features or any similar characteristic of the site that might affect the operation of the facility or be affected by that operation.
 - (5) If a geological map or report from either the Virginia Division of Mineral Resource or the U.S. Geological Survey is published, it shall be included.
- f. A signed statement by the applicant that he has sent written notice to all adjacent property owners that he intends to develop SWMF on the site, a copy of the notice and the names and addresses of those to whom the notices were sent.
 - g. For wastes, other than residential solid waste, a complete description of the waste amount and character including complete chemical analysis when appropriate.
2. Essential elements of the plans include the following:
- a. Design plans. Design plans shall be prepared by a person registered to practice professional engineering in the Commonwealth and hydrogeologic studies shall be prepared by a professional geologist registered for practice in the Commonwealth.
 - (1) Design plans for landfill consists of, at least, the following:
 - (a) A title sheet indicating the project title, who prepared the plans, the person for whom the plans were prepared, a table of contents, and a location map showing the location of the site and the area to be served.
 - (b) An existing site conditions plan sheet indicating site conditions prior to development.
 - (c) A base grade plan sheet indicating site base grades or the appearance of the site if it were excavated in its entirety to the base elevation, before installation of any engineering modifications or the beginning of any filling.
 - (d) An engineering modification plan sheet indicating the appearance of the site after installation of engineering modifications. More than one plan sheet may be required for complicated sites. This plan is required only for those sites with engineering modifications.
 - (e) A final site topograph plan sheet indicating the appearance of the site at closing including the details necessary to prepare the site for long-term care.

- (f) A series of phasing plan sheets showing the progression of site development through time. At a minimum a separate plan shall be approved for initial site preparations and each subsequent major phase of filling on site for operation through closure.

It shall indicate all items and quantities necessary to prepare each phase indicated.

- (g) A site monitoring plan sheet showing the location of all devices for the monitoring of leachate production, ground-water quality and gas production and venting. This plan shall include a table indicating the parameters to be monitored for and frequency of monitoring before and during site development. This separate plan sheet is required only for sites with a design capacity of more than 3 acres. Smaller projects may display this information on other plan sheets for submittal.
- (h) A long-term care plan sheet showing the site at the completion of closing and indicating those items anticipated to be performed during the period of long-term care for the site. The plan shall include a table listing the items and the anticipated schedule for monitoring and maintenance. In many instances this information can be presented on the final site topography sheet.
- (i) When applicable, the following information shall be presented on the plans sheet(s).
 1. All information required for the existing site conditions map as described in Section 4.1.A.C., unless including this information leads to confusion with the data intended for display.
 2. A survey grid with base lines and monuments to be used for field control.
 3. Limits of filling each major waste type of fill area.
 4. All drainage patterns and surface water drainage control structures both within the actual fill area and at the site parameter. Such structures may include berms, ditches, sedimentation basins, pumps, sumps, culverts, pipes, inlets, velocity breaks, sodding, erosion matting, or other methods of erosion control.
 5. The direction and sequence of filling within each phase.
 6. Bound surface contours at the time represented by the drawing. Spot elevations shall be indicated for key features.

7. Areas to be cleared and grubbed and stripped of topsoil.
 8. Borrow areas for liner materials, gas venting materials, berms, roadway construction, daily cover and final cover.
 9. All soil stockpiles including daily and final cover, topsoil, liner materials, gas venting materials and other excavation.
 10. Access roads and traffic flow patterns to and within the active fill area.
 11. All temporary and permanent fencing.
 12. The methods of screening such as berms, vegetation or special fencing.
 13. Leachate collection, control and treatment systems which may include pipes, manholes, trenches, berms, collection sumps or basins, risers, liners, and liner splices.
 14. Base, leachate and groundwater monitoring devices and systems.
 15. Severe weather disposal areas.
 16. Maintenance building, weight scales, etc.
 17. Special waste handling areas.
 18. Construction notes and references to details.
 19. Other appropriate site features.
- (j) A series of site cross-sections shall be drawn perpendicular and parallel to the site base line at a maximum distance of 500 feet between cross-sections and at points of grade break and important construction features. The location of the cross-sections shall be shown on the appropriate plan sheet(s) and the section labeled using the site grid system. Where applicable, each cross-section shall show existing, proposed based and final grades; soil borings and monitoring wells which the section passes through or is adjacent to; soil types, bedrock and water table; leachate control, collection and monitoring systems; limits of filling for each major waste type; drainage control structures; access roads and ramps on the site parameter and within the active fill area; the filling sequence or phases; and other appropriate site features.

- (k) Detailed drawings and typical section for, as appropriate, drainage control structures, success roads, fencing leachate and gas control systems and monitoring devices, buildings, signs, and other construction details.
2. An operations manual and design report for a landfill consisting of, at least, the following information:
- (a) The report shall identify the project title; engineering consultants(s); site owner, licensee and operator; proposed licensed acreage; site life and capacity; municipalities, industries and collection and transportation agencies served; waste types and quantities to be disposed; and any exemption waste types and quantities to be disposed; and any exemptions applied for.
 - (b) Specifications for site construction and operation shall be presented, including detailed instructions to the site operator for all aspects of site construction and operation. Reference to specifications on the plan sheet shall be pointed out as well as additional instructions included, where appropriate. The specifications shall include, at a minimum, the following information:
 - (1) Initial site preparations including specifications for clearing and grubbing, topsoil stripping, other excavations, berm construction, drainage control structures, leachate collection system, access roads and entrance, screening, fencing, groundwater monitoring and other special design features.
 - (2) A plan for initial site preparation including a discussion of the field measurements, photographs to be taken, sampling and testing procedures to be utilized to verify that the in-field conditions encountered were the same as those defined in the feasibility report, and to document that the site was constructed according to the engineering plans and specification submitted for department approval.
 - (3) Daily operations including a discussion of the timetable for development, waste types accepted or excluded, typical waste handling techniques, hours of operation, traffic routing, drainage and erosion control, windy, wet and cold weather operations, fire protection equipment, manpower, methods for handling of unusual waste types, methods for vector, dust and odor control, daily cleanup, direction of filling, salvaging, record keeping, parking for visitors and employees, monitoring, abandonment of filled areas, gas and leachate control methods, backup equipment with names and telephone numbers where

equipment may be obtained, and other special design features. This may be developed as a removable section to improve accessibility for the site operator.

- (4) Development subsequent phases
 - (5) Site closing information consisting of a discussion of the anticipated sequence of events for site closing and discussion of those actions necessary to prepare the site for long-term care and any future use.
 - (6) Long-term care information including a discussion of the procedures to be utilized for the inspection and maintenance of run-off control structures, settlement, erosion damage, gas and leachate control feasibilities, monitoring for gas leachate and groundwater, and other long-term care needs.
- (c) A design report shall be submitted which includes supplemental discussions and design calculations to facilitate department review and provide supplemental information including the following information:
- (1) A discussion of the reasoning and logic behind the design of the major features of the site, such as traffic routing, base grade and relationships to subsurface conditions, anticipated waste types and characteristics, phases of development, liner design, facility monitoring, and similar design features shall be provided. A list of the conditions of site development as stated in the department determination of site feasibility and the measures taken to meet the conditions shall be included. A discussion of all calculations, such as refuse-cover balance computations, stockpile sizing estimates, estimate of site life and runoff and leachate volume estimates shall be included. The calculations shall be summarized with the detailed equations presented in the appendix.
 - (2) A detailed analysis in accordance with section 3.15 shall be made of the financial responsibility for the time of site closing.
- (d) An appendix shall be submitted which shall include any additional data not previously presented, calculations, material specifications, operating agreements, leachate treatment agreements, documents related to long-term care funding and other appropriate information.
- (3) Closure Plan. The applicant shall prepare and submit a detailed plan for closing any SWMF. Such a plan shall be prepared in two parts, one reflecting those measures to be accomplished at the midpoint of the permit period, and the other when the useful life of the landfill is reached.

- (4) Noise Survey. When required by the Executive Director, the applicant shall survey, record and submit background sound level data in the vicinity of the proposed facility at the time of application for a permit.
- 4. Financial Assurance Regulations specify documents and presentations required of operators of landfills which are not cities, counties, towns or other governmental entities. These must be submitted before a permit can be issued.

APPENDIX A-I

PROPOSED REVISIONS TO CRITERIA FOR MUNICIPAL SOLID WASTE DISPOSAL LANDFILLS

The following pages were received as a letter from the Headquarters office of the U.S. Environmental Protection Agency. They were dated 22 August 1988 and are reproduced here in their entirety.

SOLID WASTE DISPOSAL FACILITIES CRITERIA: A SUMMARY

I. INTRODUCTION

Through Subtitle D of the Resource Conservation and Recovery Act (RCRA) of 1976, EPA is establishing a framework for Federal, State, and local government cooperation for the management of solid waste. The Federal role is to establish the overall regulatory direction, provide minimum standards for the protection of human health and the environment, and provide technical assistance to States for planning and developing sound solid waste management. The actual planning, enforcement, and direct implementation of solid waste management programs under Subtitle D of RCRA remain State and local functions.

This Federal framework currently is contained in the Criteria for the Classification of Solid Waste Disposal Facilities and Practices (40 CFR Part 257), which were developed in 1979. These Criteria establish general environmental performance standards addressing eight major topics: floodplains, endangered species, surface water, ground water, land application, disease, air, and safety. Under the Hazardous and Solid Waste Amendments of 1984 (HSWA), Congress directed EPA to assess, and revise as necessary, the Criteria for facilities that may receive household hazardous waste (HHW) and small quantity generator (SQG) hazardous waste, particularly with respect to ground-water contamination.

To fulfill its responsibilities under HSWA, EPA conducted a series of studies and analyses of solid waste characteristics, waste disposal practices, and environmental and public health impacts resulting from solid waste disposal. Final results, which form the basis for the Agency decision-making on this rule, are incorporated in EPA's Subtitle D report to Congress, scheduled to be issued shortly.

EPA's studies reveal that there were more than 11 billion tons of solid waste generated in 1986 and managed in some 227,000 solid waste disposal facilities. This included 160 million tons of municipal solid waste, 126 million tons of which were disposed of in 6,034 municipal solid waste landfills (MSWLFs). The remaining waste was recycled, incinerated, or managed by some other method.

Because of the limited data available concerning solid waste facilities and practices other than MSWLFs, EPA has decided to revise the Part 257 Criteria in phases. The first phase revises the Criteria for MSWLFs. In August 1988, EPA proposed the revised Criteria for MSWLFs in the Federal Register. In addition to general environmental performance standards, this proposal calls for a notification requirement for industrial solid waste facilities and construction/demolition waste landfills. The data obtained through these notifications and from other ongoing and planned data collection efforts may lead to a second phase of Criteria revisions, which would address other types of solid waste management facilities and practices.

II. SUMMARY OF THE RULE

This proposed action would amend Part 257 by:

- 1) including information requirements for owners and operators of industrial solid waste disposal facilities and construction/demolition waste landfills and
- 2) excluding MSWLFs from Part 257.

This action also would add a new Part 258 to propose specific requirements for MSWLFs, including those that co-dispose sewage sludge with household waste. In addition, landfills that receive ash residue from municipal waste combustion (MWC) facilities, including ash monofills (i.e., landfills that receive only ash), would be subject to these Criteria.

The new Part 258 sets forth revised minimum criteria for MSWLFs, primarily in the form of performance standards, including location restrictions, facility design and operating criteria, closure and post-closure care, financial assurance, ground-water monitoring, and corrective action requirements. The primary goals of this rule are to establish standards that protect human health and the environment, provide flexibility to the States, and minimize disruption of current solid waste management practices by taking into account the practicable capability of the regulated community.

Part 258 will be co-promulgated under the authorities of the Clean Water Act (CWA) and RCRA and, in part, will fulfill EPA's mandate to promulgate regulations governing the use and disposal of sewage sludge. A separate regulation for sludge monofills is being prepared for future proposal under the CWA.

III. AMENDMENTS TO PART 257

EPA is proposing to add to Part 257 a notification requirement applicable to owners and operators of industrial solid waste disposal facilities (landfills, surface impoundments, waste piles, and land application units) and construction/demolition waste landfills. The owner or operator of these facilities would be required to complete and submit a form to the State and EPA that would include basic information on facility type and location, waste type and volume, and management practices, as well as limited exposure data.

The proposal would exempt MSWLFs from the Part 257 Criteria; these facilities would be covered by the proposed Part 258. In addition the proposal updates and Maximum Contaminant Levels (MCLs) for the ground-water to include MCLs established since the current criteria were promulgated.

IV. SUMMARY OF THE NEW PART 258

A. Subpart A -- General

Part 258 sets forth minimum national criteria for the location, design operation, cleanup, and closure of new and existing MSWLFs, including those receiving sewage sludge from publicly owned treatment works (POTWs) and ash from MWC facilities. The revised Criteria would apply to all new and existing MSWLFs except those that close prior to the effective date of the rule. Under the proposal, the revised Criteria would be effective 18 months from when the Criteria revisions are finalized.

B. Subpart B -- Location Restrictions

In this Subpart, EPA has identified six types of locations for MSWLFs that require special siting restrictions and/or performance standards. These are:

- ! Proximity to Airports: New and existing MSWLF units located within 10,000 feet of airports handling piston-type aircraft would be required to be operated in a manner that does not pose a bird hazard to aircraft. (This requirement has not changed from Part 257.)

- ! 100-year Floodplains: New and existing MSWLF units located in the 100-year floodplain would be prohibited from restricting the flow of the 100-year flood, reducing the temporary water storage capacity of the floodplain, or resulting in the washout of solid waste so as

to pose a threat to human health and the environment. (This requirement has not changed from Part 257.)

- ! Wetlands: New MSWLF units would not be allowed to be located in wetlands unless the owner of operator demonstrates to the State that the new unit: 1) meets the discharge restrictions developed pursuant to Section 404(b)(1) of the CWA, 2) there is no practicable alternative, and 3) siting will not result in significant adverse environmental impacts. This proposal does not apply to existing units.
- ! Fault Areas: New MSWLF units would be prohibited from siting within 200 feet (61 meters) of faults that have had displacement in Holocene time (i.e., within 11,000 years). This provision applies only to new units.
- ! Seismic Impact Zones: New MSWLF units in a seismic impact area would be required to be designed to resist the maximum horizontal acceleration of hard rock at the site (i.e., ground motion from earthquakes). This provision only applies to new units.
- ! Unstable Areas: The owner or operator would be required to incorporate engineering components into the unit design to ensure the stability of a MSWLF unit located in an unstable area (e.g., Karst terrain, landslide-susceptible areas). Existing units would be required to close within five years unless: 1) the owner or operator demonstrates the structural integrity of the MSWLF, or 2) the State extends the deadline.

The owner or operator of a MSWLF unit would be required to demonstrate to the State that the design at the proposed location is in compliance with the location restrictions.

C. Subpart C -- Operating Criteria

The requirements of this Subpart would apply to all new and existing MSWLFs. Operating criteria comprise four major components: Day-to-day operating criteria, closure, post-closure care, and financial assurance.

a. Day-to-Day Operating Criteria

Specific operating requirements would include the following, and apply to both new and existing MSWLFs:

- ! Procedures for Excluding the Receipt of Hazardous Waste: The owner or operator would be required to implement a program to detect and prevent attempts to dispose of regulated quantities of hazardous waste. This program would include random inspections of incoming loads, inspections of suspicious loads, recordkeeping of inspections, training of personnel to recognize hazardous waste, and procedures to notify the State if regulated hazardous waste is found.

- ! Daily Cover: This requirement would strengthen current Part 257 criteria by requiring the application of cover material at the end of each operating day, or more frequently, to control disease vectors (disease-carrying rodents or flies), fires, odors, blowing litter, and scavenging.

- ! Disease Vector Control: The owner or operator of the MSWLF would be required to prevent or control disease-carrying populations (e.g., rodents or flies) using appropriate techniques. (This requirement has not changed from Part 257.)

- ! Explosive Gases Control: This provision would strengthen the current Part 257 Criteria for methane concentration limits (i.e., 25 percent of the lower explosive limit (LEL) in facility structures and the LEL at the facility boundary) by adding a landfill gas monitoring provision. If the standard has been exceeded, the owner or operator would be required to take steps to ensure protection of human health and the environment, submit a remediation plan to the State and work with the State in implementing the appropriate protective measures.

- ! Air Criteria: These proposed requirements prohibit open burning of solid waste, except infrequent burning of agricultural and silvicultural waste, land clearing debris, diseased trees, debris from emergency cleanup operations, and ordnance. The owner or operator would be required to comply with State Implementation Plans under the Clean Air Act. These requirements are not substantively different from the current Part 257.

- ! Access Restrictions: The MSWLF owner or operator would be required to control public

access, illegal dumping, and unauthorized vehicular traffic through use of natural and/or artificial barriers.

- ! Run-on/Run-off Control: The owner or operator would be required to design, construct, and maintain: 1) a run-on control system to prevent flow into active portions of the MSWLF during a 25-year storm, and 2) a run-off control system to collect and control at least the volume of water from a 24-hour, 25-year storm. Run-off would be handled in accordance with the surface water requirements described below.
- ! Surface Water Requirements: No MSWLF would be allowed to: 1) cause a discharge into waters of the U.S that violates CWA standards, or 2) cause a nonpoint source discharge that violates a water quality management plan under sections 209 or 319 of the CWA. This requirement has not changed from Part 257.
- ! Liquids Restrictions: The intent of this provision is to prohibit the disposal in MSWLFs of 55 gallon drums filled with liquids and the disposal of tank trucks filled with liquids. Household waste, except tank trucks filled with septic waste, are exempt. Leachate and gas condensate from the unit would be allowed to be recirculated only if the unit has a composite liner and a leachate collection system.
- ! Recordkeeping: The owner or operator would be required to retain historical records, including ground-water and landfill gas monitoring, data; inspection records; State notification procedures; and closure and post-closure care plans.

b. Closure Criteria

The closure criteria are designed to minimize the need for maintenance after closure and minimize the formation and release of leachate and explosive gases to air, ground water, or surface water during the postclosure care period. The owner or operator would be required to submit a closure plan to the State for approval.

Closure activity would be required to begin shortly after the final receipt of waste at that landfill. Upon closure, the owner or operator would be required to certify to the

State that closure of the MSWLF unit has been completed in accordance with the approved closure plan.

c. Post-Closure Criteria

Following closure of the MSWLF unit, the owner or operator would be required to conduct two phases of post-closure care. In the first phase of the post-closure care period (a minimum of 30 years) the Agency proposes that the owner or operator conduct routine maintenance of any final cover, continue any leachate collection, and maintain and operate ground-water and landfill gas monitoring, as necessary, to control environmental hazards.

Following completion of the first phase of post-closure care, the Agency proposes to require a second less intensive phase of care. The Agency proposes that the owner or operator be required to continue, at a minimum, ground-water and landfill gas monitoring in order to detect any contamination that might occur beyond the first 30 years of post-closure care. The State would establish the length of this period and the exact notation stating that the land formerly was a MSWLF and specifying approved post-closure uses would be required.

d. Financial Assurance

Under the proposed rule, the owner or operator of a MSWLF would be required to demonstrate the financial and technical ability to conduct closure and post-closure care, and, if applicable corrective action for known releases. This requirement would ensure that the owner or operator adequately plans for all the costs involved. While State and Federal Government entities would be excluded from financial assurance requirements, local governments would not be excluded. (The Agency is requesting comment on a financial test that could lead to local government exemption and whether to exempt Indian Tribes from financial assurance requirements.)

The amount of financial assurance required would be based upon written site-specific cost estimates. EPA proposes that the cost estimate account for the costs of closure, post-closure care, and corrective action for known releases. The cost estimate would be adjusted annually for inflation until the entire landfill has been closed. The State may release the owner or operator from post-closure financial requirements after the State has received certification that post-closure care has been completed.

D. Subpart D -- Design Criteria

The proposed design criteria establishes a performance standard that allows State flexibility in determining the allowable risk level and the point of compliance. New and existing units would be required to meet the performance standard but different options for control mechanisms are given for each.

New units would be required to be designed with liners, leachate collection systems, and final cover systems as necessary to meet a State-established alternative boundary. The alternative boundary would be no more than 150 meters from the waste management unit boundary and would be required to be on facility-owned land.

Existing units would be required to install a final cover that prevents infiltration of liquid into the waste, but would not be required to install liners or leachate collection systems.

E. Subpart F -- Ground-Water Monitoring and Corrective Action

This Subpart proposes a two-phased ground-water monitoring system and corrective action requirement to ensure that ground-water contamination at new and existing MSWLFs will be detected and cleaned up as necessary to protect human health and the environment. These requirements would be applicable to all new and existing MSWLF units. In Phase I monitoring, the owner or operator would monitor for specified constituents. If contamination is detected, the owner or operator would be required to comply with Phase II monitoring requirements and monitor for additional constituents.

Existing landfill units would be exempt from groundwater monitoring only if the owner or operator could demonstrate to the State that there is no potential for migration of hazardous constituents from the unit to the uppermost aquifer during the active life of the unit and the post-closure care period.

States would be required to specify a schedule for all units in the State to be in compliance with the ground-water monitoring requirements. Ground-water monitoring would be conducted throughout the active life, as well as, during closure and the post-closure care periods for that unit. The State would have final approval for the ground-water monitoring well system at each unit.

The owner or operator would be required to conduct a corrective action assessment if the Phase II

constituent levels are exceeded. The State would be required to evaluate corrective action measures, select the remedy, establish corrective action standards (considering sitespecific factors), and set the corrective action schedule. The owner or operator would be required to carry out corrective action until the State determines that ground-water protection standard would be selected by the State within a protection risk range of 1×10^{-4} to 1×10^{-7} .