

PERMIT PART 6 CLOSURE REQUIREMENTS

6.1 INTRODUCTION

The Permittees shall close the Permitted Units in accordance with the requirements in 40 CFR §§ 264.110 through 264.116, 264.178 and 264.601 as applicable, this Permit Part (6), and the procedures described in the Permitted Unit-specific closure plans in Attachment G (*Closure Plans*). Closure is the permanent discontinuation of storage and treatment of hazardous or mixed wastes at a Permitted Unit.

It is anticipated that each Permitted Unit not currently in post-closure care will achieve the clean closure criteria at Permit Section 6.2.1 (*i.e.*, clean closed). Permitted Units that do not clean close remain subject to the requirements for post-closure care under 40 CFR Part 264 Subpart G and Permit Part 7.

The closure process for a particular Permitted Unit is not complete until the Department approves the Closure Report and Closure Certification required under Permit Section 6.7.

For the purpose of closure, Permitted Units may consist of structures, equipment, outdoor storage pads and driving surfaces, and environmental media. These components of a Permitted Unit shall undergo the decontamination and verification sampling procedures specified at Permit Sections 6.3.6 through 6.3.10.3 unless they are removed from the site at closure. Examples of structures include storage sheds; buildings; individual rooms within buildings; interior walls, floors and ceilings; containment systems; and fixtures appurtenant thereto (*e.g.*, stairs, railings, and ancillary piping). Examples of equipment include forklifts, secondary containment pallets, treatment apparatus, and hand tools utilized in waste management. Examples of outdoor storage pads and driving surfaces include concrete or asphalt pavements. Environmental media includes soil, groundwater, surface water, and any anthropogenic base materials (*e.g.*, base course or gravel).

Rooms such as restrooms, offices, storage rooms, and utility rooms at a Permitted Unit in which hazardous or mixed waste was not managed are exempt from closure procedures and performance standards. Office equipment, furnishings, and tools that have not contacted hazardous or mixed waste or been subject to a hazardous constituent release are also exempt from closure procedures and performance standards.

6.2 CLOSURE PERFORMANCE STANDARDS

The Permittees shall meet the following closure performance standards for all constituents of concern (see Permit Section 6.5(1)) at each Permitted Unit to be closed. The Permittees must:

1. Minimize the need for further maintenance; and
2. Control, minimize, or eliminate, to the extent necessary to protect human health and the environment, the post-closure escape of hazardous and mixed waste, hazardous constituents, leachate, contaminated runoff, or hazardous waste decomposition products to the ground, groundwater, surface water, or atmosphere.

(See 40 CFR § 264.111).

6.2.1 Criteria for Clean Closure

Clean closure is achieved when:

1. All hazardous wastes have been removed from a Permitted Unit.
2. Any release of a hazardous waste or hazardous constituent to environmental media at or from the Unit has been remediated to a concentration level that is protective of human health and the environment. Concentration levels for environmental media may take into account non-residential exposure assumptions and future land use, provided that those assumptions are clearly stated and that any land use restrictions are maintained.
3. Structures and equipment associated with a Permitted Unit have been decontaminated to remove hazardous waste residues and hazardous constituents, or such structures and equipment have been removed and managed, in accordance with all applicable requirements.
4. All of the closure performance standards under Permit Section 6.2 have been met.
5. The Permittees have demonstrated that there is no potential for contaminated soils associated with a Permitted Unit to contaminate groundwater.

6.2.2 Inability to Achieve Clean Closure

If the Permittees are unable to achieve clean closure of a Permitted Unit under the provisions of Permit Section 6.2.1, they must implement post-closure care pursuant to Permit Part 7 and comply with 40 CFR §§ 264.117-264.120. The Permittees must also prepare a post-closure care plan and submit the plan to the Department within 90 days from the date that the Permittees or the Department determines that clean closure will not be or has not been achieved at the Permitted Unit. Additionally, pursuant to Permit Section 6.6 and prior to the commencement of the post closure period, the Closure Plan shall be amended to implement the procedures that are necessary to meet all of the closure performance standards under Permit Section 6.2.

6.3 CLOSURE PROCESS

6.3.1 Notification of Closure

The Permittees shall initiate closure by notifying the Department in writing that a Permitted Unit will undergo closure.

6.3.2 Time Allowed for Closure

The Permittees shall complete all closure activities required by this Permit Part and the Permitted Unit-specific closure plan at Attachment G (*Closure Plans*) no later than 180 days after initiating closure. The time allowed for closure may be extended if an extension is approved by the Department (*see* 40 CFR § 264.113(b)(1) and (2)) or it is necessary to amend the closure plan in accordance with Permit Section 6.6. If a closure plan must be amended, the Permittees shall complete all closure activities in accordance with the schedule in the Department-approved closure plan, including all amendments.

6.3.3 Closure Schedule

Closure of each Permitted Unit shall comply with the schedule presented in Table 6.1 (*Closure Schedule*) and the additional requirements in each Unit-specific closure plan in Attachment G.

TABLE 6.1 Closure Schedule	
Closure Activity	Schedule
Notify the Department of the initiation of closure.	Day 0
Remove all hazardous and mixed wastes. Remove any solid waste that adversely interferes with closure activities.	No later than Day 90
Conduct records review	After initiating closure and before Structural Assessment
Conduct structural assessment	After removal of all wastes and before decontamination
Submit the records review and structural assessment report to the Department, and if necessary as a result of the records review and structural assessment, submit a request to modify the Closure Plan	After conducting the records review and structural assessment and before decontamination
Complete all closure activities	No later than Day 180 after closure is initiated or no later than specified in the Department-approved Closure Plan (including any Department approved amendments), whichever is later.
Submit final Closure Report and Certification to the Department.	No later than 60 days after completing closure activities
Completion of closure	After Department approval of the Closure Report and certification.

Note: The schedule above indicates calendar days in which the listed activities shall be completed from the day closure activities are initiated. Some activities may be conducted simultaneously.

6.3.4 Removal of Waste

The Permittees shall remove all hazardous and mixed waste from the Permitted Unit within 90 days of initiating closure at a Unit, and shall also remove any solid waste that adversely interferes with closure activities (*see* 40 CFR § 264.113(a)(1) and (2)).

6.3.5 Records Review and Structural Assessment

During closure the Permittees shall conduct a records review and structural assessment of the Permitted Unit and shall submit the review and assessment in the form of a written report to the Department for approval according to the schedule in Table 6-1. If the records review and

structural assessment report is disapproved by the Department, the Permittees shall correct the deficiencies identified by the Department, and if required by the Department, amend the Closure Plan for the Permitted Unit that is to be closed.

6.3.5.1 Records Review

The Permittees shall review the Operating Record for the Permitted Unit to perform two functions: 1) the identification of all hazardous and mixed wastes and hazardous constituents of concern managed at the Permitted Unit [as defined in Permit Section 6.5(1)], and 2) the identification of all potential releases at the Unit.

The Permittees shall prepare a written report that describes the record review process and the results of that review so the Department may be assured of the thoroughness of the review. The Permittees shall, as a result of the records review update the list of constituents of concern. The Permittees shall revise the Sampling and Analysis Plan (SAP) to accurately and completely reflect all constituents of concern managed at the Permitted Unit during the operating life of the Unit. If the list of constituents of concern would be updated only by adding new constituents, then the Permittees shall inform the Department of this fact in writing in the report for the records review. If the list of constituents of concern would be updated to eliminate one or more constituents, then the Permittees must update the list of constituents of concern in the SAP via an amendment of the closure plan in accordance with Permit Section 6.6.

The review of inspection logs and records associated with the implementation of the contingency plan shall be used to determine whether any spills, releases, defects, deterioration, or damage (*e.g.*, cracks in the flooring) has occurred at the Permitted Unit during the time hazardous or mixed waste was managed at the Unit that may have resulted in contamination of structures, equipment, or the environment. If the Operating Record indicates any such incident(s), the Permittees shall include in the written report a description of the location, dates, the nature of the release, and the types and volumes of waste or materials involved in the incident(s), and shall revise the SAP in accordance with Permit Section 6.6 to include the location of the incident and applicable sampling procedures.

The records review shall be completed before initiation of the structural assessment.

6.3.5.2 Structural Assessment

The structural assessment is a visual inspection and evaluation of the Permitted Unit's physical condition, with the intent of identifying areas of contamination or potential contamination. The Permittees shall conduct a structural assessment by evaluating the Permitted Unit for evidence of a release (*e.g.*, stains) or damage (*e.g.*, cracks, gaps) to the flooring, containment structures, building materials, fixtures appurtenant thereto, or outdoor storage pads and driving surfaces. If the structural assessment reveals any evidence of a release or damage the Permittees shall, in accordance with Permit Section 6.6, amend the SAP to incorporate these locations for sampling and to include appropriate sampling procedures.

The Permittees shall notify the Department at least 30 days prior to conducting the assessment to provide the Department the opportunity to participate in the assessment. The structural assessment shall be conducted after wastes have been removed from the Permitted Unit, such that structural surfaces are visible, and before beginning any closure decontamination

procedures. The Permittees shall prepare a written report that describes the assessment conducted and the results of the assessment so the Department may be assured of the thoroughness of the assessment.

6.3.6 Decontamination and Removal of Structures and Equipment

During closure of a Permitted Unit the Permittees shall decontaminate or remove all contaminated structures and equipment in accordance with this Permit Part and the Unit-specific closure plan in Attachment G (*Closure Plans*).

6.3.6.1 Decontamination

Pressure-washing or steam-cleaning shall be the sole methods used by the Permittees to decontaminate the exposed interior surfaces of structures, including but not limited to floors, walls up to 11 feet from the floor, windows, doors, and ceilings lower than 11 feet high. If a release is known to have impacted walls or ceilings higher than 11 feet from the floor, such walls or ceilings shall be decontaminated. Large pieces of equipment shall also be decontaminated via pressure-washing or steam-cleaning. Small hand tools shall be decontaminated utilizing the decontamination procedures for sampling and measuring equipment at Permit Section 8.10.2.11. Decontamination and verification sampling is not required for the internal components of equipment or structures if there is no evidence that a release has impacted such internal components.

The Permittees may propose an alternative decontamination method in an amended closure plan in accordance with 40 CFR § 264.112(c).

6.3.6.2 Removal

The Permittees may remove and transport off-site any structure or piece of equipment associated with a Permitted Unit instead of decontaminating the surfaces of these components and conducting decontamination verification.

Components proposed to be decontaminated in Permitted Unit-specific closure plans but that are unable to be sufficiently decontaminated may be removed during closure. This removal shall not require a modification to the closure plan but instead shall be described in the closure report identified at Permit Section 6.10.

Removed materials deemed waste shall be managed in accordance with Permit Section 6.9.

6.3.7 Verification Sampling of Structures and Equipment

The Permittees shall, after decontamination, collect samples to verify that the surfaces of structures and equipment to remain in place at a Permitted Unit have been decontaminated to meet the clean closure criteria specified at Permit Section 6.2.1. The Permittees shall at closure collect the type and quantity of samples at the locations required by this Permit Part and as specified in Permitted Unit-specific closure plan sampling and analysis plans (SAPs) at Attachment G.

Wet-wipe sampling shall be used to verify surface decontamination of structures and equipment and shall be conducted in accordance with Permit Section 6.3.10.1. For all constituents of

concern, the clean closure criteria will be considered achieved when wet-wipe sample analyses demonstrate constituent concentrations do not exceed background levels or are shown by risk assessment under a variance (see Permit Section 6.7) that the level of decontamination accomplished is protective of human health and the environment. In areas where wet-wipe sampling is to be conducted, background levels for a Permitted Unit shall be established through wet-wipe sampling of an area in the Permitted Unit that was not used for the management of hazardous or mixed wastes. Method detection limits must be the lowest practicable levels that can be achieved by a typical laboratory conducting analysis under EPA SW-846 methods.

If the first-time decontamination verification analysis associated with structures and equipment reveals concentrations that fail to meet the aforementioned criteria for organic and inorganic constituents of concern, the Permittees shall again decontaminate the associated component and again verify that decontamination. If after two attempts to decontaminate a particular component, verification analysis still fails to meet the criteria for constituents of concern the Permittees may petition the Department for a variance under Permit Section 6.7, remove the component from the Facility, or comply with Permit Section 6.2.2.

The Permittees may collect wipe samples for radionuclide analysis for use as indicators of contaminant releases in Units where radionuclides were stored or treated. The Permittees shall not, however, use these as surrogates for validation of attainment of closure at a Permitted Unit.

Decontamination verification of structural surfaces shall be accomplished via the sampling and analysis of discrete samples. The Permittees shall collect at least one wet-wipe sample for each large piece of equipment or fixture at a Permitted Unit.

Wipe samples for equipment or fixtures with surface areas of no greater than 10 ft² may be composited for the purpose of laboratory analysis on a batch basis not to exceed 10 pieces of equipment or fixtures per batch. If a composite sample fails to meet the criteria for one or more constituents of concern, all equipment or fixtures in the batch represented by the composite sample shall be decontaminated again and decontamination verification repeated for the constituent(s) of concern that did not meet the criteria. If after two attempts to decontaminate a particular batch of equipment or fixtures, verification analysis still fails to meet the criteria for one or more constituents of concern, the Permittees may petition the Department for a variance under Permit Section 6.7, remove the items in the batch from the Permitted Unit and manage them in accordance with Permit Section 6.9, or comply with Permit Section 6.2.2.

Except as provided below for volatile organic compounds (VOCs), decontamination verification samples shall be collected and analyzed for all of the constituents of concern listed in the SAP for each of the Permitted Unit-specific closure plans.

Structure surface wipe sampling frequencies are one sample:

1. Every 900 ft²;
2. On structure surfaces with an area less than 900 ft² (e.g., the floor, ceiling lower than 11 feet and each wall up to 11 feet in a small room);
3. In each designated indoor loading and unloading zone as the sample for the applicable 900 ft² area;
4. At the lowest level of each sump or secondary containment in the interior of a structure; and
5. At other locations as required by the Department.

To verify decontamination for VOCs, the Permittees may decontaminate the surfaces of structures and equipment a minimum of two times in lieu of conducting sampling and analysis for VOCs.

6.3.8 Sampling of Soil and Base Material

At closure the Permittees shall sample native soils associated with Permitted Units to determine the presence and concentrations of constituents of concern. This soil sampling shall in many cases require drilling through the outdoor storage pads and driving surfaces to access the soil. Base materials associated with (*i.e.*, above) a soil sample found to be contaminated shall be considered contaminated, except as provided below regarding asphalt pavement.

Soils shall undergo laboratory analysis to determine concentrations of constituents of concern relative to the clean closure criteria of Permit Section 6.2.1 for environmental media. Soil sampling frequency shall be:

A single native soil sample at a depth of 0 to 6 inches at the following locations:

1. Every 2,500 ft² below outdoor pads and driving surfaces;
2. Below designated outdoor loading and unloading zones as the sample for the applicable 2,500 ft² area;
3. Below all buried pipe joints of piping carrying waste or waste residuals;
4. Below every 30 linear feet along the axis of any in-ground open or covered drainage system carrying waste or waste residuals; and
5. At other locations as required by the Department.

Two native soil samples, one at a depth of 0 to 6 inches and another at 12 inches:

1. At each location where storm water discharges directly off of an outdoor paved surface that was used for waste handling, storage, treatment, loading and unloading;
2. At the lowest level of each outdoor sump or catchment basin;
3. At the lowest level of each outdoor fixed secondary containment area;
4. At the location of any spill or release of hazardous or mixed waste or hazardous constituents if not previously sampled when the spill or release was remediated, and if another release has not occurred or was unlikely to occur at the same location, and the supporting analytical data are provided to the Department in the records review and structural assessment report; and
5. At other locations as required by the Department.

Base materials found to be contaminated with constituents of concern are subject to the cleanup levels and risk assessment procedures for soil specified at Permit Sections 8.4.3, 8.4.4, and 8.4.5 to determine if they should be removed or otherwise remediated to protect human health and the environment. Base material samples shall be discrete and representative of the materials being sampled. The fraction of base materials that must be analyzed shall be that portion that passes a # 4 screen.

Soil and base materials samples must include a fraction to be analyzed for VOCs unless the Permittees can demonstrate that VOCs were never a hazardous or mixed waste managed at any time at the Permitted Unit or a hazardous constituent of such waste.

Soil and base materials under asphalt pavement shall not be considered contaminated if:

1. the only constituents of concern present are those that occur naturally or are constituent(s) of asphalt;
2. the records review and structural assessment did not indicate any potential releases that contaminated or could have contaminated the soil or base material; and,
3. the constituents of concern in soil and base materials do not exceed naturally occurring background concentrations or concentrations within the asphalt, whichever is greater.

If a release of hazardous or mixed waste or a hazardous constituent is discovered in soil or base materials, the Permittees shall abide by the release notification requirements at Permit Section 8.3.3 and the closure plan amendment requirements of Permit Section 6.6.

6.3.9 Removal of Contaminated Soil or Base Materials

For inorganic constituents of concern, soil sampling results shall be compared to the approved background levels for surface soil at the Facility to determine whether contamination is present.

The Permittees shall ensure that soils and base materials (*e.g.*, gravel) at a Permitted Unit that are contaminated with constituents of concern that pose an unacceptable risk to human health or the environment based on the closure performance standards in Permit Section 6.2 are removed from the Permitted Unit. The complete removal of such soil and base materials shall be verified by the Permittees through sampling and analysis to demonstrate that the vertical and horizontal extent of all such soil and base materials have been removed.

If the contaminated soil or other environmental media that pose an unacceptable risk to human health or the environment (*i.e.*, soil or other media that do not meet the clean closure criteria in Permit Section 6.2.1) cannot be removed because it would be impracticable, the soil or other environmental media shall be subject to corrective action under Permit Section 6.8 and Permit Part 8.

Removed soils or materials deemed waste shall be managed in accordance with Permit Section 6.9.

6.3.10 Other Methods and Procedures

The Permittees shall document closure activities as specified at Permit Section 8.10.2.14.i. The Permittees shall manage wet-wipe and soil samples as specified at Permit Section 8.10.2.9. The Permittees shall at closure abide by the requirements for analyses at laboratories as specified at Permit Section 8.10.3.

6.3.10.1 Wet-Wipe Samples

Wet-wipe sampling shall be accomplished using a wipe material saturated with an appropriate solvent rubbed with consistent pressure over a consistent surface area. The wipe material must be a glass fiber cloth. The appropriate solvent is constituent or compound specific and must conform to Table 6-2. The appropriate amount of solvent shall be provided by the contract laboratory and shall conform to ASTM Standard E1792. The surface area of the wipe sample must be 100 cm² and must be an area not previously used for the collection of a wipe sample.

To ensure a consistent sampling surface area the Permittees shall utilize a template or chalk that will not contaminate the sample. The wet-wipe sample shall be collected within the entire

sample area by rubbing that area first in one direction using firm equal pressure. One side of the full wipe shall be used for the first pass. A second pass perpendicular to the first shall be made over the sample area using the wipe cloth folded in half with the side of the cloth used for the first pass inside the fold. A third pass shall be made following the procedures for the first two passes. Upon completion of wipe sampling the sample shall be sealed in an appropriate container.

Table 6-2		
Analytical Parameter	Required Solvent^b	Required Analytical Method^a
Metals	de-ionized water	6010/6020
Mercury	de-ionized water	7470/7471
SVOCs	acetone/hexane	8270
VOCs	acetone/hexane	8260
PCBs	Isooctane	8080/8082
High Explosives	Acetonitrile	8330
Dioxin/Furan Congeners	Hexane	8280/8290
Herbicides	Isooctane	8150/8151
Cyanide	de-ionized water	9010/9012

a Methods from EPA SW-846 as revised and updated

b Required solvent to be determined at the time of closure according to the current analytical method from SW-846.

6.3.10.2 Soil Samples

The Permittees shall collect soil samples using the most effective, proven, and practicable method for recovery of samples and potential contaminants. The discrete soil samples collected shall be representative of the media being investigated.

Hollow-stem auger or direct push technology methods are the preferred methods for collecting soil samples. Trenching or hand augering are also appropriate sampling methods. If hollow-stem augers are used, a decontaminated split-barrel sampler lined with brass sleeves shall be used to obtain samples. Relatively undisturbed discrete base material and soil samples shall be obtained during the advancement of each boring for the purpose determining the base material/soil interface. The drilling and sampling equipment shall be properly decontaminated before collecting each sample.

Cuttings, cores, or other samples obtained from borings shall be screened in the field for evidence of potential contamination. Screening shall consist of visual examination and

headspace vapor screening for VOCs. Headspace vapor screening for VOCs shall be conducted in accordance with Permit Section 8.10.2.4.vi. Field screening results shall be recorded on the boring logs. Soil samples shall be collected at the location specified in the unit-specific closure plans and at the locations and depths specified at Permit Section 6.3.8. The sample locations shall be measured to the nearest foot and be recorded on a scaled site map upon completion of each boring. Both sample information (*e.g.*, depth) and visual observations of the cuttings and core samples shall be recorded on the boring log. Site attributes (*e.g.*, soil sample locations, outfalls, pertinent structures) shall be located to the nearest foot on the site map.

6.3.10.3 Quality Assurance

Both soil and wipe samples shall be evaluated for associated data quality assurance. Field duplicates will be collected at a rate of ten percent of the number of environmental samples. The Permittees shall collect and analyze equipment blanks from all sampling apparatus at a frequency of ten percent of the number of environmental samples if disposable sampling equipment is not used. The Permittees shall collect field blanks at a frequency of one per day. Reagent blanks shall be used if analytical procedures requiring reagents are employed in the field as part of the investigation or monitoring program. Blanks and duplicates shall be submitted for laboratory analyses associated with the project-specific media being sampled. Data shall be validated and evaluated for quality in accordance with Permit Section 8.10.3.2.

6.4 CLOSURE PLANS

Closure plans for the Permitted Units must include the steps necessary for each Unit to be closed in accordance with this Permit Part and 40 CFR §§ 264.112(b)(4), 264.114, 264.178 as applicable, and 264.601 through 264.603 as applicable. The Unit-specific closure plans are located in Permit Attachment G (*Closure Plans*). The closure plans shall at a minimum include all unique closure procedures, an anticipated closure schedule, and a sampling and analysis plan (SAP) specifying the analytes to be sampled for and specific sampling locations. Closure Plans shall also contain the information specified at 40 CFR § 264.112(b).

6.5 SAMPLING AND ANALYSIS PLANS

SAPs shall include provisions to verify decontamination of the surfaces of structures and equipment; and to determine whether or not a release of hazardous or mixed wastes or hazardous constituents to any environmental media has occurred.

All SAPs shall, at a minimum, include:

1. *List of Constituents of Concern.* A list of hazardous and mixed waste or hazardous constituents to be sampled and analyzed for shall be included in the SAP of the unit-specific closure plan for each Permitted Unit. The list shall include all Hazardous Wastes and Mixed Wastes and hazardous constituents known or likely to have been managed at the Permitted Unit, including those associated with the EPA waste codes identified in the Permittees' Part A application (see also Permit Attachment B).
2. *Site Plan for Decontamination Verification and Soil Samples.* The site plan shall include a figure or figures depicting the boundaries of the Permitted Unit and sampling locations as required at Permit Sections 6.3.7 and 6.3.8.

3. *Type of Samples.* The type of samples to be collected (e.g., wipe, soil) at each sampling location.
4. *Sampling Methods.* A description of the approved *EPA SW-846*, ASTM, or other sampling methods and procedures that will be used to collect each type of sample.
5. *Analytical Methods.* A description of the approved *EPA SW-846* laboratory analytical methods and associated method detection limits. Method detection limits shall be commensurate with the clean closure criteria at Permit Section 6.2.1.
6. *Quality Assurance and Quality Control Procedures.* The SAP must include a description of the quality assurance and quality control (QA/QC) procedures to be used, including but are not limited to:
 - a. field and laboratory quality control samples (e.g., duplicates, trip blanks, equipment blanks); and
 - b. a description of all sample preservation, handling, labeling, and chain-of-custody procedures.
7. A description of methods for decontamination of re-usable sampling equipment; and,
8. A description of the management of waste derived from the sampling activities.

6.6 AMENDMENT TO CLOSURE PLAN

The Permittees shall amend a Permitted Unit's closure plan whenever:

1. New environmental media sampling locations are determined or if one or more constituents of concern (Permit Section 6.5(1)) are eliminated from the SAP as a result of the Records Review and Structural Assessment;
2. Conditions in 40 CFR § 264.112(c)(2) exist; or
3. The Permittees are unable to achieve clean closure.

If necessary, the Permittees shall amend a Permitted Unit's closure plan at closure to correctly and completely identify all constituents of concern as specified in Permit Section 6.5(1).

Amendment of a Closure Plan shall be performed in accordance with 40 CFR § 264.112(c).

If a closure plan must be amended, the Permittees shall submit a permit modification request to seek authorization of a change in an approved Permitted Unit-specific closure plan in accordance with 40 CFR § 270.42. The request must include a copy of the amended closure plan and all proposed modifications to the plan.

6.7 PETITION FOR A VARIANCE TO CLEAN CLOSURE CRITERIA

The Permittees may seek the Department's approval of a variance from the decontamination verification requirements for organic and inorganic constituents of concern in Permit Section 6.3.7 by submitting to the Department a written request for a determination that the attainment of the requirement is impracticable because of the inherent properties of the materials undergoing wipe sampling. The Department would consider a risk-based demonstration of attainment if the level of risk for organic and inorganic constituents of concern is based on an unrestricted human exposure scenario.

The request shall include, but not be limited to, the following:

1. A statement of the proposed variance;
2. A discussion of decontamination and sampling activities conducted in accordance with the closure plan and the associated analytical results;
3. The analytical or other data demonstrating the effectiveness of decontamination;
4. The analytical or other data demonstrating the Permittees' inability to attain the requirements under Permit Section 6.3.7;
5. A discussion of the properties of the equipment or surface pertinent to the requested variance and all analytical or other data demonstrating the chemical or physical properties of the equipment or surface that inhibit attainment of the requirements;
6. A justification for why further decontamination beyond the requirements in the closure plan would not be effective;
7. All other supporting documentation and analyses; and
8. Other information requested by the Department.

6.8 CORRECTIVE ACTION

If after removal of contaminated soil or base materials in accordance with Permit Section 6.3.8 the Permittees find the soil or other materials (*e.g.*, base materials) continue to pose an unacceptable risk to human health and the environment, the Permittees shall initiate and conduct corrective action in accordance with Permit Section 8.8.5, and shall amend the applicable closure plan in accordance with Permit Section 6.6 to describe the proposed corrective action. The proposed amended closure plan shall identify and describe the actions necessary to determine both the lateral and vertical extent of contamination of any release and obtain any other information necessary to determine the nature and risk of the contamination to human health and the environment and to choose an appropriate remedial action.

6.9 WASTE GENERATED DURING CLOSURE

By removing or decontaminating any structures, equipment, soil, or base materials during closure the Permittees may become a generator of waste. The Permittees shall manage those wastes in compliance with all applicable state, federal, and local requirements (*see* 40 CFR § 264.114).

6.10 CLOSURE REPORT AND CERTIFICATION

No later than 60 days after completing closure activities at a Permitted Unit, the Permittees shall submit a closure report (Report) for the Unit to the Department for review and approval. The Report shall document that the Permitted Unit has been closed in compliance with this Permit Part and the approved Unit-specific closure plan. A certification that is signed by the Permittees and by an independent New Mexico licensed professional engineer that the Unit was closed in accordance with the specifications in the approved closure plan must be included with the Report (*see* 40 CFR § 264.115).

The Report shall also contain:

1. A summary of all closure activities conducted, including at a minimum:
 - a. the results of all investigations;
 - b. remediation waste management;

- c. decontamination and removal activities; and
 - d. sampling activities.
2. A discussion of any variance from the activities previously approved in a closure plan and the reason for the variance;
3. A detailed presentation of sampling results, including:
 - a. sample identification;
 - b. sampling location;
 - c. laboratory analytical data, including any data qualifiers;
 - d. method detection limit for each analyte;
 - e. field and analytical laboratory quality control data
 - f. identification of analytical procedure; and
 - g. identification of analytical laboratory.
4. A discussion of data validation;
5. The location of supporting documentation, including:
 - a. field logbooks;
 - b. laboratory sample analysis reports;
 - c. QA/QC documentation;
 - d. chain-of-custody forms; and
 - e. waste manifest.
6. The location of storage or disposal of hazardous and mixed waste resulting from closure activities; and
7. A copy of the Human Health and Ecological Risk Assessment Reports, if a risk assessment was necessary.