

ATTACHMENT 2

POST-CLOSURE PLAN

SECTION 3

Site Security, Inspections, Preparedness and Prevention

Site security and inspections are also discussed in the post-closure plan presented below in Section 4. Site A is surrounded by 6-foot-high chain-link security fence topped with three strands of barbed wire. Access is controlled by two locked chain-link security gates topped with three strands of barbed wire. One gate is located on the east side of the fenced area, and one gate is located on the west side. Access by the public and livestock to the Site A facility is restricted by security fencing and locked security gates that completely surround the waste management units. Locations of site security features are shown on Drawing 2005-1.

Warning signs, meeting the requirements of 40 CFR 264.14(c), are posted at the entrance gate and along the fence (at approximately 300-foot intervals). The gates, fences, and warning signs are maintained and inspected for legibility, wear and damage during facility inspections.

USEI maintains an operating record containing inspection and maintenance records to document the results of post-closure inspections and maintenance activities on a report form similar to that shown in Figure 4-1. Records of inspection are maintained for a minimum of 3 years at the Site B (Grand View) office. Post-closure inspections address each item listed on the form in accordance with the schedule shown. Instructions are incorporated onto the reverse of the form.

The inspection plan ensures that potential problems at Site A facility are identified and corrected before they endanger human health or the environment. Regular inspections of the facility are conducted for equipment malfunctions, structural deterioration, flooding, run-on, gaseous emissions, or other discharges that could cause or lead to the release of hazardous waste constituents.

Preparedness and prevention, as required by 40 CFR, Part 264 Subpart C, includes the following requirements for which a waiver is appropriate:

- §264.32 Required Equipment; personnel are rarely on site and no alarms or communication equipment are needed. All surface areas of contamination have been removed to health-based levels. All wastes on-site are within closed and capped units. No ignitable materials are located on site and no fire control equipment is needed. No water is available on site.
- §264.33 Testing and Maintenance of Equipment; none of the listed equipment is located on site.
- §264.34 Access to Communications or Alarm System Personnel on-site carry radios or cell phones; no hazardous wastes are accepted on site and there are no communications or alarm systems.
- §264.35 Required Aisle Space; no buildings or container storage areas are located on site.
- §264.37 Arrangements with Local Authorities; no hazardous waste or materials are present on site which could spill, react, ignite, or otherwise cause a need for local response.

Due to the circumstances outlined above, this permit application constitutes a request for a waiver for the requirements of 40CFR, Part 264, Subpart C, with the exception of the general facility requirement expressed in §264.31.

SECTION 4

Post-Closure Plan

4.1 INTRODUCTION

The post-closure regulations in 40 CFR Subpart N were consulted in preparing this post-closure plan. These standards essentially require that the operator:

- Maintain the effectiveness of final cover,
- Prevent run-on and run-off from affecting cover systems,
- Protect and maintain surveyed benchmarks, and
- Inspect and maintain the groundwater monitoring system

This post-closure plan meets these objectives. The facility is subject to applicable requirements for post-closure care under 40 CFR §264.310.

Any amendments to this plan will be submitted in writing to the IDEQ at least 60 days before the proposed change is implemented, or no later than 60 days after an unexpected event has occurred that has affected the post-closure plan. Within 60 days of completing the post-closure care period for the facility, USEI will submit a certification of completion of post-closure care to IDEQ. The certification will be signed by USEI and an independent registered professional engineer.

4.2 POST-CLOSURE CONTACTS

A copy of the closure plan documentation, post-closure permit, and related facility records will be maintained at the USEI Site B facility, Grand View, Idaho. The primary facility contact for post-closure information is:

Ms. Rebecca Hogaboam
Environmental Compliance Manager
US Ecology Idaho, Inc.
P. O. Box 400
Grand View, ID 83624
Telephone: (208) 834-2275 x2344
FAX: (208) 834 - 2919

The secondary facility contact for post-closure information is:

Mr. Jason Evens
General Manager
US Ecology Idaho, Inc.
P.O. Box 400
Grand View, ID 83624
Telephone: (208) 834 - 2275 x2333
FAX: (208) 834 - 2919

4.3 SITE SECURITY

The Site A facility is surrounded by 6-foot-high chain-link security fence topped with three strands of barbed wire. Access to the Site A facility is controlled by two locked chain-link security gates topped with three strands of barbed wire. One gate is located on the east side of the fenced area, and one gate is located on the west side. Access by the public and livestock to the Site A facility is restricted by security fencing and locked security gates that completely surround the waste management units. Warning signs, meeting the requirements of 40 CFR 264.14(c), are posted at the entrance gate and along the fence (at approximately 300-foot intervals). The gates, fences, and warning signs are maintained and inspected for legibility, wear and damage during the post-closure facility inspections.

4.4 POST-CLOSURE DESIGN DESCRIPTION

Site units were closed in 1996/1997. Some units had blast doors that were previously left open, and these were shut. The units were covered, capped and graded. The entire site was regraded to promote positive drainage. Caps installed during site closure work were designed to:

1. Minimize migration of precipitation into the closed units
2. Channel site gas to vent stacks and carbon absorption units
3. Minimize maintenance
4. Promote drainage and minimize erosion or abrasion of the cap
5. Accommodate reasonably anticipated settling and subsidence to maintain cover integrity
6. Have a permeability less than or equal to the permeability of the natural sub soils

Since the installation of caps, the carbon absorption units used for the silo vents have been removed. This was the result of a risk analysis completed by ESII and approved by Idaho DEQ.

The groundwater monitoring system is described below. This system is inspected and maintained during each sampling event and during each annual inspection, and maintenance is conducted as the need arises.

4.5 POST-CLOSURE INSPECTION AND MAINTENANCE PLAN

4.5.1 Post-Closure Inspection

USEI maintains an operating record containing inspection and maintenance records to document the results of post-closure inspections and maintenance activities on a report form shown in Figure 4-1. Records of inspection are maintained for a minimum of 3 years at the Site B (Grand View) office. The post-closure inspections address each item listed on the form presented as Figure 4-1 in accordance with the schedule shown at the bottom of that report form. The contents of the form will not be altered during the term of this permit unless approved by Idaho DEQ per 40 CFR §270.42.

The inspection plan ensures that potential problems at Site A facility are identified and corrected. The inspection plan provides an inspection schedule and specific facility inspection requirements.

Regular inspections of the facility are conducted for cap erosion or settling, flooding, run-on, gas emissions, or other discharges that could cause or lead to the release of hazardous waste constituents.

Figure 4-1 includes the schedule for inspecting monitoring equipment and site security. The inspection schedule and requirements identified are based on regulatory requirements and experience in the first eight years of post-closure care, as well as an estimate of the rate of possible deterioration of the equipment involved and the probability of an environmental or human health incident if any deterioration or malfunction were to go undetected between inspections. In accordance with the instructions that are part of the inspection form, any discrepancy with the potential for endangerment to human health or the environment will be responded to immediately.

Because Site A is located in a sparsely-populated isolated area and because access to the site is controlled, the likelihood of uncontrolled access is extremely low. Site closure work has now removed all areas of contamination identified in the Site A Corrective Action Certification Report (March 1977) to acceptable health-based levels, and units containing waste have been closed and capped. This prevents potential direct exposure to waste materials. A study of silo vent emissions indicated that risks associated with vapors vented from the silos were within health limits. Exposure to contaminants from the facility via groundwater would be highly unlikely because of the distance to the aquifer and because groundwater in the area is geothermal in nature and is not considered to be potable. A stock watering well is located 4 miles away from the facility. The nearest receptor for possible human exposure is greater than 8 miles away, and the shallowest groundwater aquifer is located approximately 950 feet below ground surface.

4.5.2 Post-Closure Maintenance

The maintenance plan ensures that potential problems that might occur at Site A are identified and corrected before they endanger human health or the environment. Figure 4-1 addresses each potential problem and the protocols to be followed to determine if and when action is warranted. Regular inspections of the facility are conducted. Any discrepancy noted during an inspection will be responded to promptly.

**Figure 4-1: Post Closure Inspection and Maintenance Form
Site A Inspection and Maintenance Form**

Item	Frequency	Inspection Element/Type of Problem	Satisfactory ?	Action Required*
Security				
Fence	Semi-Annually	Inspect perimeter for breaches, damage, and tampering	_____	_____
Gates	Semi-Annually	Check for proper gate lock functions and gate operation	_____	_____
Warning Signs	Semi-Annually	In place, unobstructed, and legible	_____	_____
Groundwater Monitoring System				
Groundwater monitoring wells	Each Event	Wells are visible and accessible	_____	_____
		Check for cracks in concrete pads	_____	_____
		Check for damage to pipe and cover	_____	_____
		Check for tampering or open cap or lock	_____	_____
		Check for obstruction	_____	_____
Benchmarks	Annually	Check for deterioration/integrity	_____	_____
		Check for obstruction by vegetation	_____	_____
Final Cover System				
Cover	Annually	Check for significant holes, burrows, cracks, subsidence, and erosion**	_____	_____
		Check for ponded water or puddles	_____	_____
Surface Drainage	Annually	Check for surface runoff areas	_____	_____
		Check perimeter run-on control system	_____	_____

*For Action Required, note date completed:
**Significant Erosion: rills >6 inches deep and >10 feet long

Inspected by: _____

Please Print Signature

Inspection Date: _____ Time: _____

Figure 4-1: Post-Closure Maintenance Plan (continued)

Potential Problem	Corrective Action Taken	Documentation Requirement	Preventative Maintenance
Broken or inoperable security device(s), including locks, signs, fencing and gates.	Repair or replace security device(s) as soon as practicable	Report details of discrepancy and corrective action measures taken. Information posted to and maintained in facility operating record.	Locks to be lubricated during each inspection.
Significant erosion*, holes, burrows, or ponded water in cover system	Evaluate integrity of cover system and run-off controls. Repairs to cover system made as soon as practicable if warranted by results of evaluation. Repair significant erosion.	Report details of discrepancy, evaluation of cover system integrity, and any corrected action measures taken. Information posted to and maintained in facility operating record.	No requirement for scheduled maintenance. Arrange for rodent control as needed.
Significant settlement, subsidence, or displacement	Evaluate integrity of final cover systems and/or areas affected by displacement. Repairs made as soon as practicable if warranted by results of evaluation.	Report details of affected by subsidence settlement, or displacement; evaluation of areas affected; and any corrective action measures taken. Information posted to and maintained in facility operating record.	No scheduled maintenance will be required.
Damaged/ineffective run-on or run-off control structures	Evaluate extent of damage to run-on/run-off controls. Remove any debris as warranted.	Report details of controls affected; evaluation damage controls, if any; and any corrective action taken. Information posted to and maintained in facility operating record.	Debris removed during each inspection.
Well malfunctions	Evaluated malfunction encountered and effect(s), if any, on sampling requirements. Repairs made if sampling is affected. If necessary, reschedule sampling and notify Agency.	Report details of discrepancy; repairs made; rescheduling of any event(s), if necessary; date Agency notified of rescheduling; and any corrective action repairs made. Information posted to and maintained in facility operating record.	Locks to be lubricated during each sampling event. No other regularly scheduled maintenance is required.
Potential human health or environmental impact	Immediately notify Site B facility manager. Take action to promptly notify appropriate authorities and address potential impacts	Prepare incident report in letter form for submittal to IDEQ within 5 days of discovery. Verbally report any potential non-compliance to IDEQ within 24 hours of discovery. Conduct incident investigation and implement actions to prevent recurrence.	

*Significant erosion – Rills greater than 6 inches deep and >10 feet long.

4.6 POST-CLOSURE MONITORING PLAN

A groundwater monitoring program is underway at the facility, and a description is included in Section 6.

4.6.1 Facility Personnel Training and Equipment

Site A is an inactive, closed facility. The facility is inspected and maintained by USEI Site B personnel who are properly trained in hazardous waste work. All personnel are trained to provide them with the knowledge to safely and properly inspect this facility, including 24-hour Hazardous Waste Operator Training and annually-required refresher courses. All contractors and subcontractors involved in field work at this facility during the post-closure period are trained in accordance with applicable OSHA regulations.

Equipment suitable for hazardous materials handling, excavation, spill containment, monitoring, treatment, and disposal is headquartered at USEI's Site B (Grand View, ID) facility. Inventories of equipment are also maintained at that location, including sorbents, safety gear and clothing, drums, etc., that could be used at Site A in the event they are needed during the post-closure care period.

4.6.2 Facility Recordkeeping

All plans, drawings, maps, and other engineering and waste/facility documents that are required will be maintained at Site B. All pertinent records, including training records, copies of the permit, inspection forms, construction records, construction plans, corrective action documentation, and analytical data, shall be kept at Site B. Copies of these documents will be submitted, as requested, to the IDEQ.

4.7 NOTICE TO LOCAL LAND AUTHORITY/DEED ANNOTATION

ESII submitted required notices to local land authorities and to the IDEQ. The required notice was placed in the property deed. Documentation is attached as Appendix G, along with the Golder closure certification statement.

4.8 CERTIFICATION OF COMPLETION OF POST-CLOSURE CARE

Within 60 days after completion of the established post-closure care period for the facility, USEI will submit to the IDEQ, by registered mail, a certification that post-closure care was performed in accordance with specifications in the post-closure plan. The certification will be signed by an authorized representative of USEI and an independent registered professional engineer.