

Attachment P

Post-Closure Care

TABLE OF CONTENTS

1 Post-Closure Activities P-1

1.1 Security Systems..... P-1

1.2 Landfill Final Cover P-1

1.3 Perimeter Diversion Ditch P-2

1.4 Leachate Management System P-2

1.4.1 Leachate Collection System P-2

1.4.2 Management of Leachate..... P-3

1.4.3 Leak Detection System P-3

1.5 Vadose Zone Monitoring System P-3

1.5.1 Sampling and Analysis P-3

1.5.2 Inspection and Maintenance P-4

1.6 Recordkeeping P-4

1.7 Certification of Post-Closure P-4

1.8 Amendment of Plan P-4

1.9 Facility Post-Closure Contact P-4

Table of Tables

TABLE P-1. POST-CLOSURE INSPECTION SCHEDULE P-5

Attachment P

Post-Closure Care

1 POST-CLOSURE ACTIVITIES

Post-closure care involves long-term maintenance, monitoring, and reporting of activities that are carried out after closure is completed. Post-closure care is anticipated to be needed only for the landfill after closure. However, if clean closure cannot be certified for any non-waste management unit components, then a permit modification request shall be submitted to the New Mexico Environment Department (NMED) to include post-closure activities for those portions of the units that do not meet the closure performance standard.

The post-closure care period for the landfill will begin after completion of closure activities and continue for an anticipated 30 years. Inspection, maintenance, and repair activities to be conducted during post-closure are described in the following sections. The schedule for performing inspections is shown in Table P-1.

1.1 Security Systems

As shown in Permit Attachment L1, Engineering Drawings, Facility Drawing Number 4, the Facility perimeter fence encloses the entire 480 acres of the Facility. The fence and warning signs mounted on the fence shall be inspected and maintained throughout the post-closure period. Monthly inspections shall include checking the condition of fencing, locks, gates, and warning signs. Any signs of unauthorized entry shall be reported immediately to the local sheriff's office and NMED. Routine maintenance shall be performed based on inspection findings to repair or replace damaged or deteriorating items.

1.2 Landfill Final Cover

The integrity and effectiveness of the landfill final cover shall be maintained, including making necessary repairs to correct the effects of settling, erosion, water damage, animal damage, or other events. The landfill cover shall be inspected quarterly. Inspections shall include checking for signs of cracking, subsidence, ponding water, erosion, burrowing animals, or deep-rooted vegetation. Repairs shall be scheduled in a timely manner upon noting deficiencies in order to ensure that the final cover maintains its effectiveness.

General maintenance shall, at a minimum, include the following activities:

- i. fertilizing the vegetation periodically;
- ii. re-establishing damaged or sparse vegetative cover, including seeding and fertilizing;
- iii. conducting erosion damage repair, including soil excavation, transport and placement, seeding and fertilizing;

- iv. regrading as needed to overcome the effects of subsidence or to repair areas where ponding is occurring; and
- v. providing rodent control as needed, including trapping and relocating animals and repairing damage caused by burrowing.

Soil for erosion repair and regrading will be excavated from unused on-site areas and transported to the cap area for use in maintenance activities.

1.3 Perimeter Diversion Ditch

The perimeter diversion ditch (as shown in Permit Attachment L1 on Drawings 22 and 25) shall be inspected and maintained throughout the post-closure period to ensure its designed functions to divert precipitation and run-on from the landfill area are met. Inspections shall be conducted quarterly and shall include checking for accumulated sediments and debris, and signs of erosion. Repairs shall be scheduled in a timely manner, upon deficiencies being noted, to ensure that the diversion ditch maintains its effectiveness.

General maintenance activities shall include diversion ditch cleaning to remove accumulated sediments and debris, and regrading, as needed, to repair the effects of erosion.

1.4 Leachate Management System

1.4.1 Leachate Collection System

The leachate collection system shall be operated when necessary to ensure leachate depth over the liner does not exceed 30 centimeters (cm) (1 foot) until the completion of post-closure care. Leachate pumps shall be operated at least quarterly. The site log shall be kept on-site or at a location approved by the NMED. The volume of leachate pumped shall be recorded in a site log. After records indicate that the sump has remained dry for six months, the frequency of inspection and operation of the sump pumps may be changed to semiannually. Any leachate collected will be pumped to an aboveground storage tank.

The leachate collection system shall be inspected quarterly or semiannually as described in the preceding paragraph. Pumps will be inspected for proper operation. The riser pipes, grout seals, and other visible aboveground portions of the system shall be inspected for integrity. The level of liquid in the sumps shall be measured prior to pumping out accumulated leachate.

Routine maintenance shall be conducted to ensure that the leachate collection system remains operable. Locking caps and standpipe grouting shall be repaired or replaced as necessary. Accumulated sediments or sand in the standpipes shall be removed as necessary to allow the system to function properly. Based on the amount of leachate collected over time, a determination shall be made about the integrity of the collection system. If any component of the system is suspected of being clogged, an assessment by a New Mexico registered

professional engineer shall be made. All repairs shall be made according to the New Mexico registered professional engineer's assessment and upon approval by NMED.

1.4.2 Management of Leachate

During the post-closure care period, leachate pumped from the collection system will be temporarily stored in an aboveground tank. The leachate shall be sampled and managed at an off-site facility as hazardous waste, as appropriate. Details of the leachate sampling and analysis program shall be specified in a post-closure sampling and analysis plan.

1.4.3 Leak Detection System

During the post-closure care period, the leak detection system beneath the landfill primary liner shall initially be monitored and inspected quarterly to ensure that it is operating correctly and that any leachate that has migrated through the primary liner is collected and removed. As with the primary leachate system, the volume of leachate pumped from the secondary leak detection system shall be recorded in a site log. After records indicate that the sump has remained dry for six months, the frequency of inspection and operation of the leak detection system may be changed to semiannually.

Inspections and maintenance shall be equivalent to those described for the leachate collection system (see Section 1.4.1).

1.5 Vadose Zone Monitoring System

The vadose zone monitoring system (VZMS) shall be maintained and monitored throughout the post-closure care period. The following sections outline the post-closure monitoring plan for this system. The VZMS is described in Permit Attachment I, Vadose Zone Monitoring System Work Plan, and consists of a vadose zone sump in the landfill and vadose zone monitoring well network.

1.5.1 Sampling and Analysis

Vadose zone monitoring shall, at a minimum, be conducted semiannually to test for the presence of contaminants in the unsaturated sediments beneath, and in the vicinity of, the landfill.

Sampling procedures and analytical parameters shall be defined according to the Vadose Zone Monitoring System Work Plan (Permit Attachment I) and shall follow the same guidelines used during the active life of the Facility. If contaminants are detected in the VZMS, the vadose zone monitoring frequency shall be increased as specified by NMED, to evaluate the rate of leachate discharge to groundwater.

1.5.2 Inspection and Maintenance

The visible aboveground portions of the vadose zone monitoring system shall be inspected semiannually for integrity. Routine maintenance shall be conducted to ensure that the vadose zone monitoring system remains in operable condition. System equipment shall be repaired or replaced as necessary.

1.6 Recordkeeping

A post-closure Facility record shall be maintained. This record shall include the dates and times of inspections, inspection findings, name of inspector, volumes of leachate pumped, disposition of leachate, sampling results of leachate and vadose zone samples, and dates and nature of any corrective actions taken.

1.7 Certification of Post-Closure

Within 60 days after completion of the established post-closure care period for the Facility, the Permittee shall submit to NMED a certification that the post-closure operations were performed in accordance with the approved post-closure plan in compliance with 40 CFR § 264.120. The certification shall be signed by the Permittee and an independent New Mexico registered professional engineer.

1.8 Amendment of Plan

The Permittee shall submit a permit modification request for changes to the post-closure plan, if changes in operating plans or Facility design, or events that occur during the active life of the Facility, affect the approved post-closure plan. The owner or operator may also request a modification to the post-closure plan at any time during the active life of the Facility or during the post-closure care period. Permit modification requests shall be submitted at least 60 days prior to a proposed change in Facility design, or no later than 60 days after an unexpected event which affects the post-closure plan.

If clean closure cannot be certified for any non-permitted management unit components, then the post-closure care permit shall be amended to include those portions of the units that do not meet the closure performance standard. The post-closure care plan amendments shall be submitted to NMED no later than 60 days after the owner or operator determines that the non-permitted management unit must undergo post closure care.

1.9 Facility Post-Closure Contact

During the post-closure care period, the Facility contact organization will be the following:

Gandy Marley, Inc.
P.O. Box 1658
Roswell, New Mexico 88202
(575) 347-0434

TABLE P-1. POST-CLOSURE INSPECTION SCHEDULE

Inspection Item – Problem or Problem Area	Inspection Time
<i>Facility</i>	
Fence	Monthly
Locks and gates	Monthly
Warning signs	Monthly
<i>Landfill Cover</i>	
Cracking, subsidence, ponding water, erosion, burrowing animals, deep-rooted vegetation	Quarterly
<i>Perimeter Diversion Ditch</i>	
Sediment and debris accumulation,	Quarterly
<i>Leachate Collection System</i>	
Sump	Quarterly until the sump remains dry for 6 months, then semiannually
Pumps	Quarterly
Riser pipes, grout seals, other visible portions of the system	Quarterly
Leak detection system	Quarterly until the sump remains dry for 6 months, then semiannually
<i>Vadose Zone Monitoring System</i>	
System	Semiannually