

Post-Closure Plan

This post-closure plan describes the activities that will continue being performed to manage the closed landfill throughout the post-closure care period in accordance with 40 CFR 264.117 and 118. This plan describes the groundwater monitoring, inspection, and maintenance activities.

18.1 Post-Closure Care Contact

For information regarding the hazardous waste disposal unit during post-closure care, please use the following contact information:

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Title: Remediation Leader

Mailing Address: 3300 Kanawha Turnpike

City: South Charleston **State:** WV **Zip:** 25303

Contact Telephone: 304-747-3763

18.2 General Procedures and Inspections

The closed landfill area will be monitored and maintained throughout the post-closure care period. Activities will continue to consist of quarterly inspections and required maintenance of the landfill area and surrounding fence; the groundwater monitoring well network; five surveyed benchmarks; and sampling and analysis of groundwater. Inspections will be made by qualified personnel quarterly and after major (greater than 2 inches of rainfall in less than 24 hours) storm events. The inspections are described below and the associated forms are provided in **Appendix H**. Records of these inspections will continue to be maintained at the facility. These procedures and activities will be followed during the post-closure care period until UCC meets the corrective action program requirements (40 CFR 264.100) and meets the GWPS at the POC for 3 consecutive years.

18.2.1 Control Plan

The objective of the Six Sigma project was to reduce defects in the landfill cap and the remediation system that could lead to a Notice of Violation (NOV) from GAEPD. The Control Plan is included as **Table 18-1**. It details key inspection, O&M, and communication activities, their frequency, how they are measured, response triggers, responsibilities, and tools to be used by the project team. The most recent versions of the inspection forms used to implement the Control Plan are attached in **Appendix H**, including:

- Monthly Log Sheet: UCC Landfill Maintenance Activities
- Rainfall Run Chart

- Quarterly Inspection Log Sheet

18.2.2 Routine Landfill Inspections

UCC inspects the landfill weekly, quarterly, and after any storm which deposits 2 or more inches of rainfall in 24 hours. Inspection items include the landfill cover, runoff ditches, settlement monitors, and fencing. The specific inspection criteria for each item are presented in the Control Plan (**Table 18-1**) and summarized in **Table 18-2**.

18.2.3 Inspections during Groundwater Sampling Events

UCC inspects the physical condition of the sampled wells during each semiannual sampling event. The physical inspection is based on the groundwater monitoring criteria presented in the Control Plan (**Table 18-1**). Specific notations are made on the form indicating if the well is locked or unlocked, if the well is intact or damaged, and if the well casing elevation mark is intact or missing. If the well is damaged, the type of damage is described.

The Field Team Leader (FTL) immediately informs the Project Manager (PM) if the well is damaged. The PM forwards a copy of the inspection form to the Site Manager (SM) along with the analytical results. The monitoring well inspection criteria are summarized in **Table 18-3**.

18.2.4 Annual Corrective Action System Inspection

As discussed in **Section 11.4**, the current corrective action system will be shut down. Therefore, annual corrective action system inspections are not applicable. The ORP wells and TE wells will continue to be monitored on a semiannual basis as part of the groundwater monitoring program.

18.2.5 Deficiency Correction

Deficiencies noted during required inspections will be corrected and the corrections documented in the inspection logs (**Appendix H**).

18.2.6 Routine Maintenance

Landfill maintenance will be performed as needed to keep systems functioning in compliance with requirements.

18.2.7 Site Record Retention

Inspection, repair, and surveying records are maintained in the operating file according to the Dow Organizational Discipline Management System (ODMS), which is a Dow-prescribed method for organizing and retaining key site files. A copy of the ODMS Slotting document is kept at the site at all times. Site records include the following:

- Complete copy of permit and permit applications, including all amendments, revisions, and modifications
- Post-Closure Plan (part of permit application)
- Operating record

- Inspection logs
- Cost estimate for post-closure care (part of permit application)
- Proof of financial assurance for corrective action and post-closure

18.3 Groundwater Monitoring Plan

Groundwater monitoring of the closed landfill area during the post-closure period will consist of sampling and analysis of appropriate monitoring wells, as defined in **Section 11**. If a specific Table A constituent (**Table 7-2**) does not exceed its respective GWPS in the all wells for 3 consecutive years, UCC will submit a permit modification to delete the constituent from the Table A list (**Table 7-2**). In addition, if the concentrations in all monitoring points within the groundwater plume do not exceed GWPSs for 3 consecutive years, UCC will submit a permit modification to terminate the corrective action activities. This permit modification will also describe the subsequent compliance monitoring required after the completion of the corrective action.

18.4 Maintenance and Inspection Plan

Maintenance of the closed landfill will include the following:

1. **Maintenance and Repair of Landfill Cover** – The cover will be inspected quarterly and after all major (greater than 2 inches rainfall in less than 24 hours) storm events to check for erosion, subsidence in the cover due to differential settlement in the landfill, or other factors which may adversely affect the function of the cover. Grass has been planted on the cover to provide erosion control, and is mowed as often as necessary to maintain a grass height that meets the performance criteria listed in **Section 18**. In addition, periodic seeding and erosion repair will be performed if needed to maintain the soil and vegetation areas. Any major subsidence due to differential settlement of the landfill cover system will be repaired under the supervision of a professional engineer.
2. **Runon/Runoff Control System** – Drainage ditches will be inspected quarterly and after all major (greater than 2 inches rainfall in less than 24 hours) storm events. Ditches will be repaired as needed for erosion, and seeded when necessary to maintain grass cover.
3. **Groundwater Monitoring System** – Groundwater monitoring wells will be inspected during sampling events to verify that visible portions of the wells are maintained. During sampling events, observation of the recovery of the water level to the initial water level after well development will provide verification of the proper hydraulic operation of the wells.
4. **Additional Considerations** – Fencing and gates around the landfill area will be repaired as necessary to control access to the regulated unit area. Warning signs will be maintained at the gates and along the fence line as described in **Section 13**. The monitors used as reference points for the detection of subsidence will be maintained in the correct horizontal location. A professional land surveyor will verify the integrity of the monitors if evidence of subsidence exists.

Inspection details are provided in **Section 18**. Examples of post-closure care inspection forms are included in **Appendix H**. UCC will maintain post-closure care inspection records throughout the post-closure care period.