Class 3 Permit Modification for Corrective Action Complete with Controls Solid Waste Management Unit 76, Mixed Waste Landfill

Public Meeting Station 2 Fact Sheet

Regulatory Process for Solid Waste Management Units & Final Order for Corrective Measures for Mixed Waste Landfill

The following information defines the corrective action steps that the Department of Energy (DOE) and Sandia Corporation (Sandia) are required to complete at any Solid Waste Management Unit (SWMU) as mandated in the federal and state regulations, the Resource Conservation and Recovery Act (RCRA), and the Compliance Order on Consent (COOC). Below each corrective action step (bold text), information on how the requirement was met at SWMU 76, Mixed Waste Landfill (MWL) is also provided (non-bold text).

Initial Identification and Assessment of Potential Solid Waste Management Units

- The MWL was identified as SWMU 76 and initial background information was collected and reported in 1987.

Investigation and Characterization of Release(s)

- DOE and Sandia conducted a Phase 1 RCRA Facility Investigation (RFI) (1989-1990) and an extensive Phase 2 RFI (1992-1996) to determine the nature and extent of any releases from SWMU 76, MWL.
- Phase 2 RFI investigation included radiological surveys; air monitoring; soil sampling for background metals and radionuclides; surface geophysical surveys; active and passive soil-gas surveys; surface soil sampling for organic compounds, metals, and tritium; borehole sampling for organic compounds, metals, and radionuclides; vadose zone tests; aquifer tests; and risk assessment.
- New Mexico Environment Department (NMED) approved the Phase 2 RFI Report in 2002 after all NMED technical comments were resolved.
Evaluation of Alternatives for Corrective Measures and Remedies
In October 2001, NMED directed DOE and Sandia to conduct a Corrective Measures Study (CMS) to evaluate potential remedial alternatives (i.e., corrective measures). DOE and Sandia submitted the CMS Report to NMED on May 21, 2003 and NMED deemed it complete on January 5, 2004.
• Various remedial alternatives were screened and evaluated against a defined set of objectives and criteria following Environmental Protection Agency and NMED guidance.
• In the MWL CMS Report, DOE and Sandia recommended that an alternative vegetative soil cover coupled with institutional controls (e.g., land-use restrictions, monitoring, inspections, and maintenance/repairs) be selected as the preferred corrective measure for SWMU 76, MWL.
• This remedy is protective of human health and the environment, offers additional protection against contact with waste, and minimizes infiltration of water to prevent future waste contaminant migration.

Selection of Final Remedy by New Mexico Environment Department
After NMED deemed the MWL CMS Report complete in January 2004, DOE and Sandia submitted the first Class 3 permit modification request for SWMU 76, MWL in accordance with the COOC, asking that NMED select the final remedy.

Public participation regarding the first Class 3 permit modification for SWMU 76, MWL included the following steps:
• 60-day DOE and Sandia Public Comment Period (January 30 to March 30, 2004).
• Public Meeting on February 26, 2004.
• 120-day NMED Public Comment Period (August 11 to December 9, 2004).
• 4-day Public Hearing held by NMED on December 2, 3, 8, and 9, 2004.
Based on the administrative record and the Hearing Officer’s Report, the NMED Secretary issued the Final Order In the Matter of Request for a Class 3 Permit Modification for Corrective Measures for the Mixed Waste Landfill, No. HWB 04-11(M) (Final Order) on May 26, 2005. The final remedy selected for SWMU 76, MWL is different than the final remedy proposed by DOE and Sandia in the CMS Report. The NMED Secretary selected a vegetative soil cover with bio-intrusion barrier (hereafter referred to as the evapotranspirative [ET] cover) as the final remedy, and included specific requirements in the Final Order to address the final steps of the corrective action process consistent with the RCRA Corrective Action Process documented in the COOC.

Final Order Requirements for Corrective Measures at the Mixed Waste Landfill
The following corrective action steps are defined in the Final Order.
• Corrective Measures Implementation (CMI) Plan to include a construction plan for the ET cover (design drawings and technical specifications), a comprehensive fate and transport model, and monitoring triggers for future long-term monitoring.
• CMI Report documenting construction of the ET cover.
• Long-Term Monitoring and Maintenance Plan (LTMP) documenting monitoring, inspection, maintenance/repair, and reporting requirements to be implemented as part of the final remedy (i.e., long-term controls).
• 5-Year Reevaluation Reports addressing the feasibility of excavating SWMU 76, MWL and analyzing the effectiveness of the final remedy. The 5-Year Report must be submitted to NMED by January 8, 2019, 5 years after NMED approval of the LTMP, as clarified by NMED on October 14, 2011.
• Public participation process after implementation and completion of the final remedy.

Completion of Corrective Action
DOE and Sandia are requesting this Class 3 permit modification because all required corrective action steps defined in the COOC and Final Order have been completed or are being implemented.