TOOELE ARMY DEPOT – SOUTH AREA
(TEAD-S)

MODULE VI

ATTACHMENT 2

SOLID WASTE MANAGEMENT UNIT (SWMU) 19
POST CLOSURE PLAN

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LIST OF ACRONYMS AND ABBREVIATIONS

CFR	Code of Federal Regulations
CMS	Corrective Measures Study
EO	Environmental Office
HWMU	Hazardous Waste Management Unit
PCP	Post Closure Plan
RCRA	Resource Conservation and Recovery Act
RFI	RCRA Facility Investigation
SWMU	Solid Waste Management Unit
TEAD	Tooele Army Depot

1.0 INTRODUCTION

The three objectives of this Post-Closure Plan (PCP) are: 1) ensure that Tooele Army Depot- South Area (TEAD-S) complies with the Permit; 2) outline the requirements needed to prevent exposure or contact with contamination left in place at this Solid Waste Management Unit (SWMU); and 3) to ensure industrial use only. To meet these objectives, this PCP provides detailed information regarding the location, regulatory criteria, and post-closure inspections at SWMU 19. Post-closure requirements shall continue for a minimum of 30 years. The post-closure care period may be extended or shortened, as deemed necessary by the Director.

In accordance with Utah Admin. CodeR315-3-2.19, the PCP shall include specific information for a closed facility. As applicable to SWMU 19, the information requirements include:

- General description of the facility,
- Description of security procedures,
- General inspection schedule,
- Preparedness and Prevention Plan,
- Facility location information (including seismic and flood plain considerations),
- Closure Plan or Closure Proposal,
- Certificate of Closure,
- Topographic map, with specific scale,
- Summary of groundwater monitoring data, and
- Identification of uppermost aquifer and interconnected aquifers.

2.0 FACILITY DESCRIPTION

The following provides a general description of SWMU 19, as required by Utah Admin. Code R315-3-2.5(b)(1).

2.1 SWMU 19 LOCATION AND HISTORY

SWMU 19 is also known as the Building 533 Foundation (Empty Drum Storage Area) and consists of the concrete foundation of the former Building 533. Site features include an adjacent liquid and dry sump in the concrete floor/foundation, abandoned railroad tracks, and a septic tank. Building 533 was demolished by the Army in 1992.

SWMU 19 was investigated under a Resource Conservation and Recovery Act (RCRA) Facility Investigation (RFI) in 1992 (Ebasco). Volatile organic compounds (VOCs) were identified in sufficient concentrations to warrant a Phase II RFI. The Phase II RFI was conducted in 1994, 1995, and 1998 by SAIC that included soil gas surveys, sampling of the septic tanks and groundwater sampling. The results of the Phase II RFI were consistent with the results of the Phase I RFI showing soil gas with fuel-related VOCs and chlorinated solvents. A Corrective Measure Study (CMS) was conducted by URS-Dames and Moore in 2002; the CMS only evaluated site management measures. An additional soil gas survey was conducted in 2011 (Parsons) with results showing exceedances for trichloroethylene and chloroform. Follow up work was conducted in 2013 (Parsons) that consisted of soil borings and installation and

sampling of a new groundwater well. The results of the 2013 Parsons work demonstrated the site met industrial closure.

2.2 PAST OPERATIONS

Building 533 was originally used for railroad car maintenance and later for storage of empty drums and other materials. The SWMU 19 area is currently used for storage of recyclable materials.

2.3 PREVIOUS INVESTIGATIONS DOCUMENTATION

Phase I RFI	**Phase II RFI**	**Phase II-A RFI**	**CMS**	**Soil Gas**	**RFI Addendum**
Ebasco (1995)	SAIC (2001)	SAIC (2001)	URS (2002)	Parsons (2011)	Parsons (2014)

2.4 CLOSURE ACTIVITIES

The 2014 Phase II RFI Addendum (Parsons, 2014) established the following controls:

1. Form D TEAD-S Excavation Permit process shall be enforced.
2. Industrial closure with no groundwater monitoring.

2.5 HUMAN HEALTH AND ECOLOGICAL RISK ASSESSMENT

The results of the risk assessment from the Phase II RFI Addendum show that the site did not meet risk-based levels for residential receptors but that risk levels are met for industrial workers. The primary pathway driving risk is inhalation of vapors migrating from soil to indoor air. No pathways were identified as complete for ecological receptors due to the industrial setting of the area.

2.6 SURFACE WATER AND GROUNDWATER

There is no surface water at this site. Groundwater sampling showed no chemicals were detected in the new source area well (Parsons, 2014). A thick clay unit (greater than 120 feet) also exists between the sump sources area and the first water-bearing zone, preventing migration of VOCs detected in subsurface soils down to groundwater. No groundwater monitoring was proposed for this site.

2.7 CLOSURE NOTIFICATIONS

Federal facilities are exempt from submitting notifications to the local zoning authority in accordance with Utah Admin. Code R315-8-7.

2.8 SECURITY REQUIREMENTS

Based on the results from the human health risk assessment, only management measures are required at SWMU 19.

3.0 POST-CLOSURE OPERATIONS AND INSPECTIONS

3.1 INTRODUCTION

SWMU 19 post closure care shall be in accordance with Module VI. To ensure that the area is not reused or developed for residential purposes, periodic site inspections and a biennial post-closure report are required. Removal and reuse of soil from this site shall not be allowed unless approved by both the TEAD-S Environmental Office (EO) in accordance with Condition VI.H.3. and the Director; removal and reuse of the soil associated with the soil pile removal is prohibited unless part of the remediation process.

3.2 ROUTINE SITE INSPECTIONS

During the Post-Closure period, general inspections of the SWMU 19 site shall be conducted as required by Module VI annually by November 1st to ensure the site remains under industrial use. Any modifications to the frequency of inspections shall be in accordance with Condition I.D.3.

Site inspections consist of a complete walkthrough and visual inspection of the areas. A general site inspection checklist for industrial sites is included in Module VI as Form A. Completed inspection forms shall be filed with the TEAD-S EO as part of the Facility Operating Record.

At a minimum, the site inspector shall have a radio or phone and a First Aid kit available during inspections.

3.3 INSPECTION FOLLOW-UP

The EO shall notify the appropriate personnel to implement corrective action as needed. Corrective action shall be initiated as soon as practical after identifying a problem, or as directed by the Permittee. If corrective action is required a technical plan shall be prepared to summarize the problem, the potential impacts, the proposed plan for action, and the time-frame in which corrective action shall be implemented as required by Module V and Module VI. This plan requires Director approval prior to implementing corrective action.

3.4 NON-COMPLIANCE REPORTING

Notifications of any type of non-compliance with any condition of this Permit shall be submitted as required by Condition V.L.4.

3.5 BIENNIAL POST-CLOSURE REPORT

The Permittee shall submit in accordance with Utah Admin. Code R315-3-3.1(l)(9), a Biennial Post-Closure Report shall be prepared for all SWMUs undergoing post-closure care by March 1, of the reporting year. The SWMU 19, the Biennial Post-Closure Report shall include, at a minimum, the following:

- General site description and conditions, and
- Inspection records.

3.6 REQUIRED SUBMITTALS

Biennial Post-Closure Reports shall be submitted to the Director no later than March, of the year the report is due.

3.6.1 Non-Compliance Reporting:

- The Permittee shall notify the Director orally within 24 hours of any noncompliance that may endanger public drinking water supplies or human health or the environment.

- The Permittee shall notify the Director in writing within five days of any non-compliance, which may endanger public drinking water supplies or human health or the environment including evidence of groundwater contamination, significant data quality issues. The Facility shall notify the Director in writing within 15-days of any noncompliance which does not endanger public drinking water supplies or human health or the environment.

4.0 POST-CLOSURE CERTIFICATION

No later than 60 days after post-closure period has been completed, the Permittee shall submit a certification to the Director, signed by the Permittee and an independent professional engineer registered in the State of Utah, stating why post-closure care is no longer needed.

5.0 REFERENCES

Division of Solid and Hazardous Waste (DSHW), 2001. *Administrative Rules for Cleanup Action and Risk-Based Closure Standards*. Utah Department of Environmental Quality. R315-101, Utah Administrative Code.

Ebasco, 1993. *RCRA Facility Investigation – Phase I Suspected Release Units, Revised Final*. Deseret Chemical Depot, Stockton, Utah. July.

Parsons, 2001. *Final Completion report for Soil Gas Survey at SWMU 19.* August.

Parsons, 2014. *Final RCRA Facility Investigation Addendum Report for Solid Waste Management Unit 19*. January.

SAIC, 2011. *Final Phase II RCRA RFI Report, Group 3 Suspected Releases SWMUs, Volume 1*. August.

URS, 2002. *Final Corrective Measures Study SWMU 19 – Building 533 Foundations (Empty Drum Storage Area) group 3 Suspected Release SWMUs.* July.