

DUGWAY PERMIT

MODULE VII

ATTACHMENT 34

HAZARDOUS WASTE MANAGEMENT UNIT

HWMU 158

POST CLOSURE PLAN

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1.0 INTRODUCTION

The two objectives of this Post-Closure Plan are to ensure that 1) Dugway Proving Ground (DPG) complies with the Post-Closure Permit issued by the State of Utah in accordance with Utah Administrative Code (Utah Admin. Code) R315-265 - Title 40 of the Code of Federal Regulations (CFR) §264.117 incorporated by reference, with respect to post-closure inspection requirements and 2) to ensure the site is used for industrial purposes only. To meet these objectives, this Post-Closure Plan provides detailed information regarding the location, regulatory criteria, and post-closure inspections at Hazardous Waste Management Unit (HWMU) 158, herein referred to as DPG-158. Post-closure requirements will continue for a minimum of 30 years after closure of DPG-158. The post-closure care period may be extended or shortened, as deemed necessary Utah Admin. Code R315-265 (40 CFR §264.117(a)(2) incorporated by reference).

Based on the approved Resource Conservation and Recovery Act (RCRA) Facility Investigation (RFI) there are no uncontrolled sources of contamination (Utah Administrative Code (Utah Admin. Code) R315-101-2 and 3) present at DPG-158. The nature and extent of potential contamination has been characterized in soil and groundwater in accordance with Utah Admin. Code R315-101-4, and the site risks have been assessed in accordance with Utah Admin. Code R315-101-5. Surface and subsurface soil meet the criteria for an industrial land-use scenario. Groundwater qualifies for no further action (NFA) and additional groundwater monitoring is not required.

In accordance with 40 CFR §270.28 and Utah Admin. Code R315-270-28, the Post-Closure Plan is required to include specific information for a closed facility. As applicable to DPG-158, the information requirements include:

- General description of the facility;
- Description of security procedures;
- Copy of 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.

Table 1 provides the regulatory citations for the general information requirements and the specific locations in the Post-Closure Plan where the specific information is presented. Following the table, Sections 2.0 through 10.0 provide the required information in sufficient detail to implement the HWMU 158 Post-Closure Plan.

Table 1: Summary of HWMU 158 Post-Closure Information Requirements Under 40 CFR §270.14, and Utah Admin. Code R315-270-28 and R315-270-14.

Regulation Citation	Requirement Description	Location Requirement is Addressed
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Table 1 (Continued): Summary of DPG-039 Post-Closure Information Requirements Under 40 CFR 270.14, Utah Admin. Code R315-270-28 and R315-270-14

40 CFR §270.14(b)(1) Utah Admin. Code R315-270-14(b)(1)	General Description of the Facility	Section 2.0.
40 CFR §270.14(b)(4) Utah Admin. Code R315-270-14(b)(4)	Description of Security Procedures	Section 3.0.
40 CFR §270.14(b)(5) Utah Admin, Code R315-270-14(b)(5)	General Inspection Schedule	Section 7.2 and Inspection Form A of Module VII.
40 CFR §270.14(b)(6) Utah Admin. Code R315-270-14(b)(6)	Preparedness and Prevention	Section 4.0.
40 CFR §§270.14(b)(11) (iii-v) Utah Admin. Code R315-270-14(b)(11) (iii-v)	Facility Location Information Applicable Seismic Standard	Section 5.0.
40 CFR §270.14(b)(19) Utah Admin. Code R315-270-14(b)(19) (iii)	Facility Location Information 100-year floodplain	Section 6.0.
40 CFR §270.14(b)(16) Utah Admin. Code R315-270-14(b)(16)	Closure Certification and Notification	Section 9.0 and Appendix A.
40 CFR §270.14(b)(16) Utah Admin. Code R315-270-14(b)(16)	Post-Closure Cost Estimate	Federal Facilities are exempt from this requirement.
40 CFR §270.14(b)(18) Utah Admin. Code R315-270-14(b)(18)	Proof of Financial Coverage	Federal Facilities are exempt from this requirement.
40 CFR §270.14(b)(19) Utah Admin. Code R315-270-14(b)(19) (i)	Topographic Map Map Scale and Date	Figure 1 (1 inch = 1,000 feet [ft]).
40 CFR §270.14(b)(19) Utah Admin. Code R315-270-14(b)(19) (ii)	Topographic Map 100-year floodplain area	Section 6.0; HWMU 158 is not located within a verified 100-year floodplain area; Figure 1.
40 CFR §270.14(b)(19) Utah Admin. Code R315-270-14(b)(19) (iii)	Topographic Map Surface waters including intermittent streams	Section 2.6 and Figure 1.
40 CFR §270.14(b)(19) Utah Admin. Code R315-270-14(b)(19) (iv)	Topographic Map Surrounding land uses	Figure 1. There are no residential populations in the vicinity of HWMU 158. The closest residential area is English Village (approximately 20 miles away).
40 CFR §270.14(b)(19) Utah Admin. Code R315-270-14(b)(19) (v)	Topographic Map A wind rose (i.e., prevailing windspeed and direction)	There are no residential populations in the vicinity of HWMU 158. The closest residential area is English Village (approximately 20 miles away). A wind rose is not deemed necessary for HWMU 158.

Table 1 (Continued): Summary of DPG-039 Post-Closure Information Requirements Under 40 CFR 270.14, Utah Admin. Code R315-270-28 and R315-270-14

40 CFR §270.14(b)(19) Utah Admin. Code R315-270-14(b)(19) (vi)	Topographic Map Orientation of Map, North Arrow	Figure 1.
40 CFR §270.14(b)(19) Utah Admin. Code R315-270-14(b)(19) (vii)	Topographic Map Legal boundaries of the hazardous waste management facility.	Legal boundaries have not been established at Dugway for former HWMUs.
40 CFR §270.14(b)(19) Utah Admin. Code R315-270-14(b)(19) (viii)	Topographic Map Access control, fence, gates	Section 3.0 and Figures 1 and 2.
40 CFR §270.14(b)(19) Utah Admin. Code R315-270-14(b)(19) (ix)	Topographic Map Injection and withdrawal wells	There are no injection or withdrawal wells located in the vicinity of HWMU 158; Figures 1 and 2.
40 CFR §270.14(b)(19) Utah Admin. Code R315-270-14(b)(19) (xi)	Topographic Map Barriers for drainage or flood control	HWMU 158 is graded to drain away from the evaporation pond; Figures 1 and 4.
40 CFR §270.14(c) Utah Admin. Code R315-270-14(c)(1)	Groundwater Monitoring Information Summary of Groundwater Data	Not Applicable. Post-closure groundwater monitoring is not required at HWMU 158.
40 CFR §270.14(c) Utah Admin Code R315-270-14(c)(2)	Groundwater Monitoring Information Identification of uppermost aquifer	Not Applicable. Post-closure groundwater monitoring is not required at HWMU 158.
40 CFR §270.14(c) Utah Admin. Code R315-270-14(c)(3)	Groundwater Monitoring Information Delineation of the Waste Management Area	Not Applicable. Figures 3 and 4; Post-closure groundwater monitoring is not required at HWMU 158.
40 CFR §270.14(c) Utah Admin. Code R315-270-14(c)(4)	Groundwater Monitoring Information Extent of Plume	Not Applicable. Post-closure groundwater monitoring is not required at HWMU 158.
40 CFR §270.14(c) Utah Admin. Code R315-270-14(c)(5)	Groundwater Monitoring Information Detailed Plans/ Engineering Report for Proposed Groundwater Program	Not Applicable. Post-closure groundwater monitoring is not required at HWMU 158.
40 CFR §270.14(c) Utah Admin. Code R315-270-14(c)(6)(i)	Groundwater Monitoring Information Proposed List of Parameters	Not Applicable. Post-closure groundwater monitoring is not required at HWMU 158.
40 CFR §270.14(c) Utah Admin. Code R315-270-14(c)(6)(ii)	Groundwater Monitoring Information Proposed Groundwater Monitoring System	Not Applicable. Post-closure groundwater monitoring is not required at HWMU 158.
40 CFR §270.14(c) Utah Admin. Code R315-270-14(c)(6)(iii)	Groundwater Monitoring Information Background Values	Not Applicable. Post-closure groundwater monitoring is not required at HWMU 158.
40 CFR §270.14(c) Utah Admin. Code R315-270-14(c)(6)(iv)	Groundwater Monitoring Information A description of the Proposed Sampling	Not Applicable. Post-closure groundwater monitoring is not required at HWMU 158.

2.0 FACILITY DESCRIPTION

The following provides a general description of HWMU 158, also known as the Evaporation Pond near the Northwest Decontamination Pad at Dugway, as required by Utah Admin. Code R315-270-14(d).

2.1 HWMU 158 LOCATION AND HISTORY

HWMU 158 is located at the northwest end of the runway at Michael Army Airfield (Figure 3). The unit is located 180 ft southwest of HWMU 162, approximately 2.2 miles northwest of HWMU 36 the former Ditto Imhoff Tank and Drainfield and 4,500 feet (ft) west of the Waste Pile at Michael Army Airfield (Corrective Action Solid Waste Management Unit 82). The HWMU is located on nearly level ground within the central portion of Government Creek Valley (Foster Wheeler Environmental Corporation [FWEC], 1996), at an elevation of approximately 4,332 ft mean sea level (msl) (Figure 1).

HWMU 158 is an unlined evaporation pond that measures 244 ft by 244 ft and was 6 ft deep when constructed in 1969. The bottom of the pond measures 184 ft by 184 ft. A 1 ft high earthen berm was constructed at the top of the pond. Waste was conveyed to HWMU 158 by a 6-inch reinforced concrete pipe (RCP) from HWMU 162. A concrete splash block was placed at the end of the pipe in the evaporation pond. The splash block and conveyance piping were removed in 1999 (Allied Technology Group [ATG], 2000).

2.2 PAST OPERATIONS

HWMU 158 was used to treat waste by evaporation generated at adjacent HWMU 162. HWMU 162 was used to clean uncontaminated aircraft, to decontaminate aircraft and liquid storage tanks that were used in agent-simulant testing, and for loading aircraft with chemical agent simulants. Bleach and caustic soda were the decontamination liquids used at HWMU 162. The fire department used water to wash residues from the pad into the collection sumps (Ebasco, 1993 and FWEC, 1996). The collection sumps discharged into the HWMU 158 evaporation pond, which was designed to treat the waste by evaporation. HWMU 162 is currently operational but inactive; the sump outlets were sealed and the 6-inch diameter RCP connecting the two units was removed in 1999 (ATG, 2000). With the removal of the 6-inch RCP, HWMU 158 is no longer operational.

2.3 PREVIOUS INVESTIGATIONS DOCUMENTATION

The detailed results of previous soil and groundwater sampling, and closure information including the risk assessment are available for HWMU 158 in the Utah Division of Waste Management and Radiation Control (UDWMRC), formerly the Division of Solid and Hazardous Waste (DSHW), public documents listed below in Table 2 (Utah Admin. Code R315-270-14(b)(13)).

Table 2: UDWLRC Library Documents Detailing HWMU 158 Investigations

Document Title	Received Date	UDWLRC Library No.
Ebasco, 1993. <i>Closure Plans for Solid Waste Management Units at Dugway Proving Ground, Nature and Extent Investigation No. 10 - SWMUs 51, 58, 158, and 162, Dugway Proving Ground.</i> June.	6/93	
Foster Wheeler Environmental Corporation (FWEC), 1996. <i>Dugway Proving Ground, Draft Closure Plan Module 3, Section 32, Closure Plan for SWMU 158 – Evaporation Pond near the Northwest Decontamination Pad and SWMU 162 – Northwest Decontamination Pad.</i> September.	9/96	
U.S. Army Corps of Engineers (USACE), 1999. <i>Dugway Proving Ground Closure Module 3, Hazardous Waste Management Unit 158.</i> Final. January.	1/99	
Shaw Environmental, Inc. (Shaw), 2005. <i>Final Closure Certification Report, HWMU 158, The Evaporation Pond Near the Northwest Decontamination Pad, Dugway Proving Ground.</i> April.	4/05	DSHW-2005-010024

2.4 CLOSURE ACTIVITIES AND OBJECTIVES

Dugway has completed closure actions for HWMU 158, and the site meets the risk-based closure criteria for future industrial use, as specified in Utah Admin. Code R315-101. Activities performed at HWMU 158 are described in detail in the Final Closure Certification Report (Shaw, 2005). These activities included soil and groundwater sampling. Data were collected from six soil borings, 20 surface and subsurface samples, and four groundwater monitoring wells. Little, if any, waste was generated during the operation of HWMU 158. Based on soil samples collected from the evaporation pond, no waste is present at HWMU 158. The sample results were evaluated in human health and ecological risk assessments as discussed below. Remediation was not needed at this site.

2.5 HUMAN HEALTH AND ECOLOGICAL RISK ASSESSMENT

Human health and ecological risk assessments were conducted and indicated that the remaining residual contamination does not pose an unacceptable risk for future workers as defined in Utah Admin. Code R315-101. The cancer risk is less than 1E-04 and the hazard index is less than 1 based on future industrial use of the property. Ecological risks are expected to be minimal. The human health and ecological risk assessments are presented in the Final Closure Certification Report (Shaw, 2005).

No waste is present and the concentration of residual contamination in the soil does not represent a health risk or an ongoing source of soil or groundwater contamination. Therefore, there is not any potential for escape of hazardous waste, hazardous constituents, leachate, contaminated runoff, or hazardous waste decomposition products to the ground, surface waters, or to the atmosphere.

2.6 SURFACE WATER AND GROUNDWATER

As summarized below and in the final closure plan for this site and the Ditto GMA as referenced in Section 10, groundwater monitoring is not required at this site. The general direction of surface water flow is to the west toward the center of the Great Salt Lake Desert. Surface water in the area flows towards unlined drainage swales that parallel the northwest and southeast border of the pond (Figure 4). There are no permanent standing bodies of surface water in the vicinity of HWMU 158 (Figures 1 and 2).

Three groundwater supply wells (WW3, WW28, and WW31) are located in the Ditto Technical Center (DTC) (Figure 3) and are the nearest active groundwater supply wells to HWMU 158. Water supply well WW28, at a distance of approximately 13,000 ft is the closest water supply well to HWMU 158. The shallow groundwater is saline, with total dissolved solids (TDS) concentrations ranging between 17,900 and 30,500 milligrams per liter and near neutral pH (6.49 to 7.19) (Shaw, 2003). Based on the TDS data, groundwater is classified as Class IV (greater than 10,000 milligrams per kilogram, saline water quality) based on Utah Admin. Code 317-6-3 (Utah Admin. Code, 2002).

2.7 CLOSURE NOTIFICATIONS

The Certification of Closure (Appendix A) was received and verified by the Executive Secretary of the Utah Solid and Hazardous Waste Control Board in April 2005.

Federal facilities are exempt from submitting notifications to the local zoning authority as required by Utah Admin. Code R315-264-116 and R315-264-119.

3.0 SECURITY REQUIREMENTS

HWMU 158 is located within a federal, military installation (Dugway). As such, access to the installation is restricted for the common population. Dugway's Base Security (Range Control) shall monitor access to HWMU 158.

4.0 PREPAREDNESS AND PREVENTION MEASURES

All wastes have been removed from HWMU 158 and therefore the DPG Emergency Response and Contingency Plan of this Permit, where applicable to this site, shall be used to announce and respond to emergency conditions.

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

5.0 SEISMIC STANDARD

HWMU 158 is not located within 200 ft of any active faults. Although Utah is tectonically active, most of the earthquake activity occurs about 55 miles to the east along the Wasatch Range Foothills.

A geologic map completed in a United States Geological Survey (USGS) study (Barnhard and Dodge, 1988), was used to determine the distribution, relative age, and amount and extent of surface rupture on Quaternary fault scarps in the area of HWMU 158.

The USGS study (Barnhard and Dodge, 1988) concluded that morphologic and geologic data collected along the fault scarps in the area indicate that all were formed during the later Pleistocene era, and there is not any clear evidence of Holocene surface rupture. Several faults inferred on geophysical evidence are located at Dugway; however, there is no evidence of displacement during Holocene time.

6.0 FLOODPLAIN STANDARD

HWMU 158 is not located within a 100-year verified floodplain. The National Flood Insurance Rate Map, identifying the boundary of the 100-year flood, does not include Dugway. There are no permanent streams or other surface water bodies on Dugway.

Surface water from precipitation flows onto the flat plain and evaporates. Like other arid regions, Dugway is subject to flash flooding resulting from high-precipitation events. Flash floods have occurred only four times in the history of the installation, in 1944, 1952, 1973, and 1983. The major area affected during flash floods has been the Government Creek drainage channel, which has overflowed and caused minor inundation of roads at the Ditto Technical Center (located approximately 2.5 miles southeast of HWMU 158).

7.0 POST-CLOSURE INSPECTIONS

7.1 INTRODUCTION

DPG-158 has been closed under a continued industrial use scenario, which prohibits residential use in the area formerly occupied by the site. The site has been closed under the DPG RCRA Part B Permit requirements. To ensure that the area is not reused or developed, annual site inspections and a biennial post-closure report shall be required. Removal and reuse of soil from this site will not be allowed unless under an excavation permit approved by the Dugway Environmental Program Office (EPO). Soil excavation at this site must be coordinated through the Dugway EPO.

7.2 ANNUAL INSPECTIONS

During its Post-Closure period, general inspections of the former DPG-158 site shall be conducted annually by November 1st to ensure that the former site remains under industrial use and to verify the Dugway Dig Permit process (Module VII.F.4) has been followed. The frequency of inspections can be modified in accordance with amendments submitted in the form of proposed permit modifications.

Site inspections will consist of a complete walkthrough and visual inspection of the site. Completed inspection forms (Module VII Form A) shall be filed with the Dugway EPO.

The site shall be visually inspected to ensure the following conditions are maintained at the site:

1. There is no evidence of land use other than for industrial purposes within the former site boundary; and
2. There is no evidence of soil disturbance other than that authorized by the Dugway Environmental Office.

Table 3 summarizes the post-closure inspection schedule for HWMU 158, and lists the items to be inspected and potential problems. Inspection personnel shall note any problems found and shall inform appropriate Dugway representatives.

Table 3: HWMU 158 Post-Closure Inspection Schedule

Inspection/Monitoring Item	Method of Documentation	Frequency of Inspection
Land Use	General Site Inspection Checklist (Form A of Module VII)	Annual inspections shall be conducted before <u>November 1st</u> , of each year.
Soil Disturbance (other than that authorized by the Dugway Environmental Office)	General Site Inspection Checklist (Form A of Module VII)	Annual inspections shall be conducted before <u>November 1st</u> , of each year.

7.3 INSPECTION FOLLOW-UP

Copies of completed site inspection checklists (Module VII Form A) shall be forwarded to the Dugway Environmental Office. The Point-of-Contact for the Dugway Environmental Office is as follows:

Environmental Programs Compliance Representative
 Dugway Proving Ground Environmental Program Office
 Dugway Proving Ground, UT 84022
 Telephone: (435) 831-3560

The Dugway Environmental Office shall notify the appropriate personnel to implement corrective action as needed.

Corrective action shall be initiated as soon as practical but no longer than 30 days of discovery. If the corrective action will require more than 30 days, a schedule of the correction will be provided to the Director for approval. If the corrective action requires substantial effort, a technical plan shall be prepared to summarize the problem, illustrate potential impacts, and clarify the proposed plan for action. Routine corrective actions will be recorded on the site inspection form in the comments with the date of the correction. This will ensure proper tracking of the resolution.

8.0 SUBMITTALS/REPORTING

Based on the evaluation presented in Final Closure Certification Report for HWMU 158 (Shaw, 2005), no post-closure monitoring, including groundwater monitoring, is required for HWMU 158.

8.1 NON-COMPLIANCE REPORTING

The conditions at HWMU 158 are such that the impact to human health and the environment is very unlikely. Hazardous wastes are no longer managed or maintained at the site. Nonetheless, if there is any type of non-compliance with any condition of this Permit, notifications shall be submitted per Permit Condition VI.C.5.

8.2 BIENNIAL POST-CLOSURE REPORT

In accordance with Utah Admin. Code R315-270-30(1)(9), a Biennial Post-Closure Report shall be prepared for all Dugway closed HWMUs and SWMUs undergoing post-closure care by March 1st of the

reporting year. The first Biennial Post-Closure report for HWMU 158 shall be due by March 1, 2010. Specifically for HWMU 158, the Biennial Post-Closure Report shall include, at a minimum, the following:

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

8.3 REQUIRED SUBMITTALS

Table 4 summarizes the requirements for the Biennial Post-Closure Report for HWMU 158 and reporting for any non-compliance.

Table 4: Summary Table of Required Submittals

Required Submittals	Frequency and Submittal Date
<u>Biennial Post-Closure Report</u>	Post-Closure Reports shall be submitted to the Division of Solid and Hazardous Waste no later than March 1 st of the year the report is due. Reporting years are even-numbered years beginning with March 1, 2010, for the duration of the Post-Closure Monitoring Period.
<u>Non-Compliance Reporting</u> 1. Anticipated Non-Conformance; 2. 24-hour Notification for information concerning the non-compliance, which may endanger public drinking water supplies or human health or the environment; 3. Five-day written notification for information concerning the non-compliance, which may endanger public drinking water supplies or human health or the environment. The Director may waive the 5-day notice, in favor of a 15-day notice; and 4. Written notification for information concerning the non-compliance, which does not endanger human health or the environment.	1. 30 days advance notice of any change which may result in non-compliance; 2. Orally within 24 hours of discovery; 3. Within 5 days of discovery; and 4. Submitted with the Biennial Post-Closure Report.

9.0 POST-CLOSURE CERTIFICATION

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

10.0 REFERENCES

- Allied Technology Group (ATG), 2000. *Contract Completion Report, Environmental Remediation Activities, Dugway Proving Ground, Dugway, Utah*. Draft. Fremont, California. May.
- Barnhard, T.P. and R.L. Dodge, 1988. *Map of Fault Scarps Formed on Unconsolidated Sediments, Tooele 1° x 2° quadrangle, Northwestern Utah*, United States Geological Survey.
- Ebasco, 1993. *Closure Plans for Solid Waste Management Units at Dugway Proving Ground, Nature and Extent Investigation No. 10 - SWMUs 51, 58, 158, and 162, Dugway Proving Ground*. June.
- Foster Wheeler Environmental Corporation (FWEC), 1996. *Dugway Proving Ground, Draft Closure Plan Module 3, Section 32, Closure Plan for SWMU 158 – Evaporation Pond near the Northwest Decontamination Pad and SWMU 162 – Northwest Decontamination Pad*. September.
- IT Corporation (IT), 2001. *Fiscal Year 2000 Annual Report and Quality Control Summary Report for the Groundwater Monitoring Program, Dugway Proving Ground, Dugway, Utah*. Final. January.
- Parsons Engineering Science (PES), 2000. *Dugway Proving Ground, Dugway, Utah, Final Phase II RCRA Facility Investigation, Technical Memorandum for Groundwater Assessment*. Salt Lake City, Utah. April.
- PES, 2004. *Hydrogeological Assessment and Regional Groundwater Management Plan, Volume I, Ditto Groundwater Management Area*. Final. October.
- Shaw Environmental, Inc. (Shaw), 2003. *Fiscal Year 2002 Annual Report for the Groundwater Monitoring Program, Dugway Proving Ground, Dugway, Utah*. Final. May.
- Shaw, 2005. *Final Closure Certification Report, HWMU 158, The Evaporation Pond near the Northwest Decontamination Pad, Dugway Proving Ground, Utah*. April.
- Steiger, Judy I., and Geoffrey W. Freethey, 2001. *Ground-Water Hydrology of Dugway Proving Ground and Adjoining Area, Tooele and Juab Counties, Utah*. USGA Water Resources Investigation Report 00 4240.
- Utah Administrative Code, 2002. *Ground Water Quality Protection*. R317-6. April.
- U.S. Army Corps of Engineers (USACE), 1999. *Dugway Proving Ground Closure Module 3, Hazardous Waste Management Unit 158*. Final. January.

APPENDIX A

COPY OF
CERTIFICATION OF CLOSURE

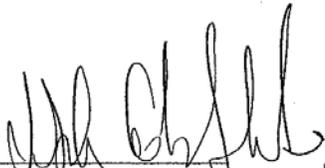
CERTIFICATION OF CLOSURE

The Closure Report for Hazardous Waste Management Unit (HWMU) 158 at Dugway Proving Ground, Utah has been prepared by Shaw Environmental in accordance with the closure requirements specified under the Utah Administrative Code (UAC) 315-7-14 and 40 Code of Federal Regulations 265, Subpart G. The requirements of UAC 315-101 form the basis for the risk-based criteria in the closure of HWMU 158.

In accordance with 40 CFR 265.115, the signature and seal certify that a licensed professional has reviewed the Closure Report in accordance with the above referenced regulatory requirements.

Respectfully submitted,

Scott Reed
Directorate of Environmental Programs
Dugway Proving Ground


L. Anthony Gokoffski, P.E.
Utah Registered Civil Engineer No. 283254
Shaw Environmental, Inc.

