Hazardous Waste Management
RCRA Permit NEVHW0032
August 2022 – Rev 1

Hawthorne Army Depot – Main Base
Hawthorne, Nevada

EPA ID# NV1210090006

State of Nevada
Department of Conservation and Natural Resources
Division of Environmental Protection
Bureau of Sustainable Materials Management

PERMIT MODIFICATION CHRONOLOGY

Revised/Reviewed: August 31, 2022
By: M. Godbout

POINTS OF CONTACT FOR THE FACILITY:

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PERMITTEE: **Hawthorne Army Depot (Main Base)**
FACILITY IDENTIFICATION NUMBER: NV1210090006
PERMIT NUMBER: NEVHW0032
DATE ISSUED: May 21, 2020
INITIAL PERMIT or RENEWAL Renewal

Part B. Rev. #	Permit Rev. #	Date of Rev.	Event	Description
1	-	3/01/2022	Class 1 Mod	Revision to allow storage of PCB waste in Bldg 106-22 and updates to the Waste Management Plan; the Waste Analysis Plan, the Contingency Plan and SOPs for Logistic Services, Old Bomb and RF-9.
2	1	8/31/2022	Class 1* Mod	Change in Contractor

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Attachment 1A - RCRA Permit Renewal Application, Part A

Attachment 1B - List of Restricted Wastes at HWAD Main Base

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Attachment 2 - List of Documents adopted by this Permit
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(*not physically attached to this Permit)*

Nevada Department of CONSERVATION & NATURAL RESOURCES

NDEP

RCRA PERMIT
FOR A HAZARDOUS WASTE MANAGEMENT FACILITY

Facility:	**Hawthorne Army Depot – Main Base** **1 South Maine Avenue, Hawthorne, Nevada 89415**	REVISION 1 AUGUST 2022
Permittee:	**U.S. Dept. of the Army, Hawthorne Army Depot** and **Amentum Services, Inc.**	
Facility EPA ID#:	**NV1210090006**	
Permit Number:	**NEVHW0032**	

This Permit is issued by the Nevada Division of Environmental Protection (NDEP) under the authority of Section 3006 of Resource Conservation and Recovery Act (RCRA) (40 CFR regulations codified in Part 271), Nevada Revised Statutes (NRS) 459.520 and Nevada Administrative Code (NAC) 444.842 through 444.8746 and 444.960. The State of Nevada has adopted 40 CFR Subpart A of Part 2, Subparts A and B of Part 124, and Parts 260 through 270 inclusive, by reference in the NAC at 444.8632 with exceptions listed at 444.86325 and as revised at 444.8633. This Permit is issued to the United States Department of the army, Hawthorne Army Depot and Amentum Services, Inc. (hereafter collectively called the Permittee), to operate a hazardous waste management facility located at US Route 95 North, in Hawthorne, Mineral County, Nevada, at a latitude of 38° 32' 20" North, longitude of 118° 39' 42" West, and summarily described as follows:

The facility is located on approximately 147,236 acres of federal land south of Walker Lake in Mineral County, Nevada. Hawthorne Army Depot (HWAD) is a government-owned contractor-operated conventional munitions depot. The hazardous waste management units are operated by Amentum Services, Inc. The facility consists of:

- Four (4) Hazardous Waste Container Storage Buildings;
- Eight (8) Retrofitted Hazardous Waste Munition Magazines;
- One (1) Hazardous Waste Incinerator (detonating furnace) [RF-9];
- One (1) Hazardous Waste Incinerator (plasma arc furnace) [PODS][i];
- One (1) Hazardous Waste Incinerator (rotary kiln and combustion chamber) [BEDS][i], and
- One (1) Open Burn Unit [Old Bomb].

This Permit does not include authorization of a hazardous waste landfill and as such, the Permittee is not required to conduct groundwater monitoring for the hazardous waste management units permitted (under 40 CFR 264.90 and 264.99). The Permittee is required to conduct soil sampling on a quarterly basis, as described in Appendix B (Waste Analysis Plan) of the Permit Application. The hazardous waste storage units and all of the incinerator units are to be clean-closed. The open burn unit is also expected to be clean-closed; however, if clean closure is not reached, post-closure care for this unit will be required. Contingent post-closure care requirements are described further in Section 13 of this Permit.

The facility is currently undergoing corrective action at solid waste management units in response to past releases of hazardous constituents. Corrective action requirements for the facility and the sites involved are further described in Section 12B of this Permit.

The Permittee is required to maintain and operate the munitions recycling and reutilization operations at

[i] Inactive at the time this Permit was issued.

the Western Area Demilitarization Facility (WADF) as a prerequisite for any open burn or open detonation operations. WADF is located at the northern end of the depot, and consists primarily of mechanical disassembly of ordnance and munitions; mechanical removal of explosives using hole cutting, sawing, pressing, shearing, and hole-punching techniques; hot water washout and steam-out of meltable, soluble, and press-loaded explosives; autoclave heating of projectiles; and an NPDES-permitted water treatment facility to treat contaminated water generated by the various processes at WADF. All of these processes have operational limitations related to the size and type of munitions that can be processed. These and other waste minimization requirements are further described in Section 8 of this Permit.

The Permittee must comply with all terms and conditions of this Permit. This Permit consists of the conditions contained herein, the Permit Application (Parts A and B), and the applicable regulations contained in 40 CFR Parts 124, 260 through 270, and Sections 206, 212, and 224 of HSWA, which require corrective action for all releases of hazardous wastes or constituents from any solid waste management unit (SWMU) at a treatment, storage, or disposal unit seeking a Permit, regardless of the time at which waste was placed in such unit, as specified in the Permit. If there are conflicts between this Permit and the Permit Application, the Permit shall prevail. Applicable regulations are those that are in effect on the date of issuance of the Permit, in accordance with 40 CFR 270.32(c) and NAC 444.8632.

This Permit is based on the assumption that the information submitted in the Part A and Part B Permit Applications (dated March 2018) and subsequent amendments[ii] is accurate, and that the facility will be operated as specified in the Permit Application and this Permit.

Any inaccuracies found in the Permit Application may be grounds for the modification, revocation and reissuance, or termination of this Permit in accordance with 40 CFR 270.41, 270.42, 270.43, and NAC 444.8632, and for enforcement action. The Permittee must inform the Director of any deviation from or changes in the information in the application, which would affect the Permittee's ability to comply with applicable regulations or permit conditions. Failure to comply with any term or condition set forth in this Permit in the time or manner specified herein will subject the Permittee to possible enforcement action and penalties pursuant to NRS 459.565, 459.570, 459.585, and 459.595.

This Permit is effective as of **May 21, 2020** and shall remain in effect until **May 21, 2025** unless revoked and reissued under 40 CFR 270.41 and NAC 444.8632, terminated under 40 CFR 270.43 and NAC 444.8632, or continued in accordance with §270.51(a) and NAC 444.8632.

This Permit shall be reviewed by the Director five (5) years after the date of Permit reissuance and shall be modified, as necessary, as provided in NRS 459.520 (4) and 40 CFR 270.50(d).

Signature on file ***originally issued on May 21, 2020***

Daren Winkelman Date
Chief, Bureau of Sustainable Materials Management

*Revisions:
Revision 1: Class 1* Modification: August 31, 2022

Daren Winkelman
Chief
Bureau of Sustainable Materials Management

[ii] Hereafter referred to as the Permit Application.

1. SUMMARY

The permitted site is a government-owned contractor-operated (GOCO) hazardous waste treatment, storage and recycling facility. The Permittee is the United States Department of the Army, Hawthorne Army Depot and Amentum Services, Inc. The Permittee may accept and treat the waste identified in the Part A Application and managed as described in the Part B Permit Application, both of which are adopted by reference and listed as attachments to this permit. Wastes managed include conventional ammunition, propellants, and explosives. The facility may receive, store, and process hazardous waste munitions from onsite and from other facilities of the U.S. Government. The facility is required to conduct soil sampling at the Old Bomb unit, with the intent of being clean closed at the time of cessation of any permitted hazardous waste activity.

Storage of waste is described in Section 3 (Container Management Conditions); the open burning at Old Bomb is described in Section 6 (Subpart X Unit Conditions); and the Incinerators are described in Sections 7A (RF-9 Incinerator Conditions), 7B (PODS Incinerator Conditions), and 7C (BEDS Incinerator Conditions). The requirements for waste minimization, organic air emission, corrective action, post closure and financial assurance are described in Sections 8 (Waste Minimization Conditions), Section 9 (Organic Air Emission Conditions for Tanks and Containers), 12A (Corrective Action Conditions for Regulated Units), 12B (Corrective Action Conditions for SWMU & AOC), 13 (Post Closure Conditions) and 14 (Financial Assurance Conditions), respectively. All regulations cited in this Permit refer to regulations in effect on the date of issuance of this Permit. The Permittee is to maintain compliance with the conditions contained in this Permit and any self-implementing regulations promulgated after issuance.

1.1 EFFECT OF PERMIT

The Permittee is allowed to accept, treat and/or store hazardous waste in accordance with the conditions of this Permit and its attachments. Any acceptance, treatment or storage of hazardous waste not authorized in this Permit is prohibited. Subject to 40 CFR 270.4, compliance with this Permit during its term constitutes compliance, for purposes of enforcement, with Subtitle C of the Resource Conservation and Recovery Act (RCRA), Nevada Revised Statutes (NRS) 459.400 through 459.600, Nevada Administrative Code (NAC) 444.842 through 444.8746, NAC 444.960, and the Hazardous & Solid Waste Amendments of 1984 (HSWA). Issuance of this Permit does not convey any property rights of any sort, nor any exclusive privilege; nor does it authorize any injury to persons or property or invasion of other private rights, or any infringement of State or local law or regulations. Compliance with the terms of this Permit does not constitute a defense to any order issued or any action brought under Sections 3008(a), 3008(h), 3013, or 7003 of RCRA; Sections 106(a), 104 or 107 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. 9601 et seq., commonly known as CERCLA), as amended by the Superfund Amendments and Reauthorization Act (SARA) of 1986, NRS 459.400 through 459.600, or any other law providing for protection of public health or the environment. Compliance with the terms of this Permit shall not relieve the Permittee of its obligation to comply with any other applicable local, state, or federal laws and regulations.

[40 CFR 270.4 and 270.30(g)]

The State of Nevada has adopted 40 CFR Subpart A of Part 2, portions of Subparts A and B of Part 124, Parts 260 through 270, inclusive, by reference in NAC 444.8632 with exceptions listed

at NAC 444.86325 and as revised at NAC 444.8633 and NAC 444.8634. Therefore, all references to 40 CFR in this Permit are as they are adopted in NAC 444.8632 through 444.8634.

1.2 PERMIT ACTIONS

1.2.1 Permit Modification, Revocation and Re-Issuance, and Termination

This Permit may be modified, revoked and reissued, or terminated for cause, as specified in 40 CFR 270.41, 270.42 and 270.43. The filing of a request for a permit modification, revocation and reissuance, or termination, or the notification of planned changes or anticipated noncompliance on the part of the Permittee, does not stay the applicability or enforceability of any Permit Condition.

[40 CFR 124.5(c), 270.4(a) and 270.30(f)]

Modifications and/or updates to information provided in the Part A and B Permit Applications may require the Permittee to file a request for a permit modification. As such, the Permittee must provide information on any modifications and/or updates to the Director. Any changes in hazardous waste operating procedures require approval prior to implementation.

1.2.2 Permit Renewal

This Permit may be renewed as specified in 40 CFR 270.30(b) and Permit Condition 1.5.3. Review of any application for a Permit renewal shall consider improvements in the state of control and measurement technology, as well as changes in applicable regulations.

[40 CFR 270.30(b), HSWA Sec. 212]

1.3 SEVERABILITY

The provisions of this Permit are severable, and, if any provision of this Permit, or the application of any provision of this Permit, to any circumstance, is held invalid, then the application of such provision to other circumstances and the remainder of this Permit shall not be affected thereby.

1.4 DEFINITIONS

For purposes of this Permit, terms used herein shall have the same meaning as those in NAC 444.842 through 444.8746, and 40 CFR Parts 124, 260, 264, 266, 268, and 270, unless this Permit specifically provides otherwise. Where terms are not defined in the regulations or the Permit, the meaning associated with such terms shall be defined by a standard dictionary reference or the generally accepted scientific or industrial meaning of the term. For purposes of this Permit, the definitions listed below apply.

1.4.1 Action Levels

Health- and environmental-based levels determined by EPA or NDEP to be indicators for protection of human health and/or the environment. Contamination exceeding action levels indicates a potential threat to human health and/or the environment, which may require further study. Action levels are also used as reference points for developing final cleanup standards.

1.4.2 Administrator

The Administrator of the Nevada Division of Environmental Protection (NDEP), a designee, or an authorized representative.

1.4.3 Ancillary Equipment

Any device including, but not limited to, piping, fittings, flanges, valves and pumps, that is used to distribute, meter, or control the flow of hazardous waste to a storage or treatment unit or tank, between hazardous waste storage and treatment units or tanks, or to a point of shipment for disposal off-site.

1.4.4 Area of Concern (AOC)

Any area having a probable release of a hazardous waste or hazardous constituent, regardless of whether or not the release originated from a Solid Waste Management Unit (SWMU), and is determined by the Division to pose a current or potential threat to human health or the environment.

1.4.5 Certified Laboratory

A laboratory that has been approved by the Director to perform specific analyses referenced in NRS 459.500.

1.4.6 Closure Plan

The plan for closure prepared in accordance with the requirements of 40 CFR 264.112.

1.4.7 Contamination

The presence of any hazardous constituent in a concentration which exceeds the naturally occurring concentration of that constituent in areas which should not be affected by the operations of the facility.

1.4.8 Corrective Action

May include all corrective actions necessary to protect human health and the environment for all releases of hazardous waste or hazardous constituents at the facility, regardless of the time at which waste was placed in the unit, as required under 40 CFR 264.101. Corrective action may address releases to air, soils, surface water sediment, groundwater, or subsurface gas.

1.4.9 Days

Calendar days, unless otherwise specified.

1.4.10 Director

The Director of the Nevada Department of Conservation and Natural Resources (DCNR), a designee, or an authorized representative.

1.4.11 Discover, Discovery and Discovered

The date on which the Permittee or a Division representative either:

1. Visually observes evidence of a new SWMU or AOC,
2. Visually observes evidence of a previously unidentified release of hazardous constituents to the environment, or
3. Receives information which suggests the presence of a new release of hazardous waste or hazardous constituents to the environment.

1.4.12 Division

The Nevada Division of Environmental Protection (NDEP), including personnel thereof authorized by the Director to act on behalf of the Division.

1.4.13 Extent of Contamination

The horizontal and vertical area in which the concentrations of hazardous constituents in the environmental media being investigated are above the naturally occurring concentration of that constituent in areas not affected by the operations of the facility.

1.4.14 Facility

Includes all contiguous land, structures, other appurtenances and improvements on the property, and any mobile units used for the treatment or storage of hazardous waste. For the purpose of implementing corrective action under 40 CFR 264.100 and 264.101, "facility" includes all contiguous property under the control of the owner or operator seeking a Permit under Subtitle C of RCRA.

1.4.15 Hazardous Constituents

Those substances listed in Appendix VIII of 40 CFR 261 and/or Appendix IX of 40 CFR 264, or any pollutant as defined in the NRS 445A.400.

1.4.16 Hazardous Waste Management Unit (HWMU)

A contiguous area of land on or in which hazardous waste is managed, or the largest area in which there is significant likelihood of mixing hazardous waste constituents in the same area. Examples of hazardous waste management units include surface impoundments, waste piles, land treatment areas, landfill cells, incinerators, tanks and their associated piping and underlying containment system, and container storage areas. A container alone does not constitute a unit; the unit includes containers and the land or pad upon which they are managed.

1.4.17 Interim Measures

Actions necessary to minimize or prevent the further migration of contaminants and limit actual or potential human and environmental exposure to contaminants while long-term corrective action remedies are evaluated and, if necessary, implemented.

1.4.18 Permittee

The entity (person(s) or corporation) to whom this Permit is issued.

1.4.19 Post-Closure Care Period

A thirty year period beginning when a hazardous waste management unit is certified as closed and during which time the Permittee shall be required to maintain, monitor, and report in accordance with the appropriate requirements of 40 CFR 264 Subparts F, K, L, M, N, and X. The post closure care period is unit specific and may be more or less than thirty years. The Director may modify the post-closure care period applicable to a unit if it is found that an extended or reduced period is sufficient to protect human health and the environment.

1.4.20 Post-Closure Care Plan

The plan for post-closure prepared in accordance with the requirements of 40 CFR 264.117 through 40 CFR 264.120.

1.4.21 Qualified Professional Engineer

A person who by reason of his/her professional education and practical experience is granted a license by the Nevada State Board of Professional Engineers and Land Surveyors to practice professional engineering.

1.4.22 Release

Any spilling, leaking, pouring, emitting, emptying, discharging, injecting, pumping, escaping, leaching, dumping, or disposing of hazardous wastes (including hazardous constituents) into the environment (including the abandonment or discarding of barrels, containers, and other closed receptacles containing hazardous wastes or hazardous constituents).

1.4.23 Remediation Waste

All solid and hazardous wastes, and all media (including groundwater, surface water, soils and sediments) and debris, which contain listed hazardous wastes or which themselves exhibit a hazardous waste characteristic, that are managed for the purpose of implementing corrective action requirements under 40 CFR 264.100, 264.101 and RCRA Section 3008(h). For a given facility, remediation wastes may originate only from within the facility boundary, but may include waste managed in implementing RCRA Sections 3004(v) or 3008(h) for releases beyond the facility boundary. *[40 CFR 260.10]*

1.4.24 Schedule of Compliance

A schedule of remedial measures included in this Permit, including an enforceable sequence of interim requirements (for example, actions, operations, or milestone events) leading to compliance with the Resource Conservation and Recovery Act and/or the State of Nevada Hazardous Waste Management Regulations.

1.4.25 Solid Waste

Any garbage, refuse, sludge from a waste treatment plant, water supply treatment plant, or air pollution control facility and other discarded material, including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, mining, and agricultural operations, and from community activities, but does not include solid or dissolved material in domestic sewage, or solid or dissolved materials in irrigation return flows or industrial discharges

which are point sources subject to permits under Section 402 of the Federal Water Pollution Control Act, as amended (86 Stat. 880), or source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954, as amended (68 Stat. 923).

1.4.26 Solid Waste Management Unit (SWMU)

Any unit which has been used for the treatment, storage, or disposal of solid waste at any time, irrespective of whether the unit is or ever was intended for the management of solid waste. RCRA hazardous waste management units are also solid waste management units. SWMUs include areas that have been contaminated by routine and systematic releases of hazardous waste or hazardous constituents, excluding one-time accidental spills that are immediately remediated and cannot be linked to solid waste management activities (e.g. product or process spills).

1.4.27 Temporary Unit (TU)

Any temporary tanks and/or container storage areas used solely for treatment or storage of hazardous remediation wastes during remedial activities required under 40 CFR 264.101 or RCRA Section 3008(h). Designated by the Director, such units must conform to the standards specified in 40 CFR 264.553.

1.4.28 Unit

Includes, but is not limited to, any landfill, surface impoundment, waste pile, land treatment unit, incinerator, injection well, tank, container storage area, wastewater treatment unit, elementary neutralization unit, or recycling unit.

1.5 DUTIES AND REQUIREMENTS

1.5.1 Duty to Comply

The Permittee shall comply with all conditions of this Permit, except that the Permittee need not comply with the conditions of this Permit to the extent and for the duration such noncompliance is authorized by an Emergency Permit (see 40 CFR 270.61). Any Permit noncompliance, except under the terms of an Emergency Permit, constitutes a violation of the appropriate Act and is grounds for enforcement action; for Permit termination, revocation and reissuance, or modification; or for denial of a Permit renewal application. *[40 CFR 270.30(a)]*

1.5.2 Compliance Schedule

Any schedule of compliance established subsequent to the issuance of this Permit; it shall be adopted by reference as a condition of Permit compliance, as if fully set forth herein.

1.5.3 Duty to Reapply

If the Permittee wishes to continue an activity regulated by this Permit after the expiration date of this Permit, the Permittee shall submit a complete application for a new Permit at least 180 days prior to this Permit's expiration. *[40 CFR 270.10(h) and 270.30(b)]*

1.5.4 Permit Expiration

This Permit shall be effective for a fixed term not to exceed five (5) years. As long as the NDEP

is the Permit-issuing authority, this Permit and all conditions herein shall remain effective beyond the expiration date, if the Permittee has submitted a timely, complete application (40 CFR 270.10, 270.13 through 270.29) and, through no fault of the Permittee, the Director has not issued a new Permit, as set forth in 40 CFR 270.51.

1.5.5 Need to Halt or Reduce Activity not a Defense

It shall not be a defense for the Permittee, in an enforcement action, that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this Permit. *[40 CFR 270.30(c)]*

1.5.6 Duty to Mitigate

In the event of noncompliance with this Permit, the Permittee shall take all reasonable steps to minimize releases to the environment, and shall carry out such measures, as are reasonable, to prevent significant adverse impacts on human health or the environment. *[40 CFR 270.30(d)]*

1.5.7 Proper Operation and Maintenance

The Permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Permittee to achieve compliance with the conditions of this Permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance/quality control procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of this Permit.
[40 CFR 270.30(e)]

1.5.8 Permit Actions

This Permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any Permit condition.
[40 CFR 270.30(f)]

1.5.9 Property Rights

This Permit does not convey any property rights of any sort, nor any exclusive privilege.
[40 CFR 270.30(g)]

1.5.10 Duty to Provide Information

The Permittee shall furnish to the Director, within a reasonable time, any relevant information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Permit, or to determine compliance with this Permit. The Permittee shall also furnish to the Director, upon request, copies of records required to be kept by this Permit.
[40 CFR 264.74(a) and 270.30(h)]

1.5.11 Inspection and Entry

The Permittee shall allow the Director, or an authorized representative, upon the presentation of

credentials and other documents, as may be required by law, to: *[40 CFR 270.30(i)]*

1. Enter at reasonable times upon the Permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this Permit;
2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Permit;
3. Inspect, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Permit; and
4. Sample or monitor, at reasonable times, for the purposes of assuring Permit compliance or as otherwise authorized by RCRA, any substances or parameters at any location.

1.5.12 Monitoring and Records

1.5.12.1 Samples and measurements taken for monitoring shall be representative of the monitored activity. The method used to obtain a representative sample of the waste to be analyzed must be the appropriate method from Appendix I of 40 CFR Part 261 or an equivalent method approved by the Director. Laboratory methods must be those specified in the current edition (and its current update) of EPA manual SW-846: Test Methods for Evaluating Solid Waste, Physical/Chemical Methods – Standard Methods of Wastewater Analysis or an equivalent method, as specified in the Waste Analysis Plan in Section II B.2 of the Permit Application.
[40 CFR 270.30(j)(1)]

1.5.12.1.1 Any groundwater and soil samples for regulatory monitoring and remedial efforts must be sent to a Nevada-certified laboratory for analyses. As a permitted hazardous waste management facility the on-site laboratory is not required to be state-certified if the laboratory is solely utilized for the purposes of on-site management of wastes and on-site generated lab results are not utilized to demonstrate environmental or regulatory compliance.
[NRS 445A.425 and 445A.427]

1.5.12.2 The Permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this Permit, the certification required by 40 CFR 264.73(b)(9), and records of all data used to complete the application for this Permit, for a period of at least three (3) years from the date of the sample, measurement, report, record, certification, or application. In addition, the Permittee shall maintain records from all soil sampling for the active life of the facility. This period may be extended by request of the Director at any time and is automatically extended during the course of any unresolved enforcement action regarding this facility. *[40 CFR 264.74(b) and 270.30(j)(2)]*

1.5.12.3 Records of monitoring information shall include: *[40 CFR 270.30(j)(3)]*

1. The date(s), exact place(s), and time(s) of sampling or measurements;
2. The individual(s) who performed the sampling or measurements;
3. The date(s) analyses were performed;
4. The individual(s) who performed the analyses;

5. The analytical techniques or methods used; and
6. The results of such analyses.

1.5.13 Signatory Requirements

All applications, reports, or information submitted to or requested by the Director, a designee, or authorized representative, shall be signed and certified in accordance with 40 CFR 270.11.

[40 CFR 270.30(k)]

1.5.14 Reporting Requirements

1.5.14.1 Reporting Planned Changes

The Permittee shall give notice to the Director, as soon as possible, of any planned physical alterations or additions to the permitted facility. *[40 CFR 270.30(l)(1)]*

1.5.14.2 Reporting Anticipated Non-Compliance

The Permittee shall give advance notice, as described in Permit Condition 1.5.14.2.1, to the Director of any planned changes in the permitted facility or activity, which may result in noncompliance with Permit requirements. *[40 CFR 270.30(l)(2)]*

1.5.14.3 Certification of Construction or Modification

The Permittee may not commence treatment, storage or disposal of hazardous waste in any modified portion of the facility except as provided in 40 CFR 270.42, until:

1. The Permittee has submitted to the Director, by certified mail or hand delivery, a letter signed by the Permittee and a qualified Professional Engineer stating that the facility has been constructed or modified in compliance with the Permit; and

   [40 CFR 270.30(l)(2)(i)]

2. (A) The Director has inspected the modified or newly constructed facility and finds it is in compliance with the conditions of the Permit; or *[40 CFR 270.30(l)(2)(ii)(A)]*

   (B) Within fifteen (15) calendar days of the date of submission of the letter in Permit Section 1.5.14.2.1.1 of this Permit, if the Permittee has not received notice from the Director of his or her intent to inspect, prior inspection is waived and the Permittee may commence treatment, storage, or disposal of hazardous waste.

   [40 CFR 270.30(l)(2)(ii)(B)]

1.5.14.4 Transfer of Permits

This Permit is not transferable to any person, except after notice to the Director. The Director may require modification or revocation and reissuance of the Permit to change the name of the Permittee and incorporate such other requirements as may be necessary under RCRA. Before transferring ownership or operation of the facility during its operating life (or during its post-closure period, if applicable), the Permittee shall notify the new owner or operator, in writing, of the requirements of 40 CFR 264 and 270, NAC 444.842 through 444.8746, NAC 444.960, and this Permit. *[40 CFR 264.12(c), 270.30(l)(3) and 270.40]*

1.5.14.5 Monitoring Reports

Monitoring results shall be reported at the intervals specified elsewhere in this Permit, or as required by a compliance schedule issued pursuant to Permit Condition 1.5.2.

[40 CFR 270.30(l)(4)]

1.5.14.6 Compliance Schedules

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this Permit or issued as an enforcement action, shall be submitted no later than fourteen (14) calendar days following each schedule date. *[40 CFR 270.30(l)(5)]*

1.5.14.7 Twenty-Four Hour Reporting

1.5.14.7.1 The Permittee shall report to the Director any noncompliance which may endanger human health or the environment. Any such information shall be reported orally within 24-hours from the time the Permittee becomes aware of the circumstances. This includes any release to the environment pursuant to 40 CFR 264.196(d); and any spill, unintentional fire or explosion at or near a RCRA-permitted unit or other hazardous waste management area, even if there is no apparent immediate threat to human health or the environment. The report shall include the following:

1. Information concerning a release of any hazardous waste that may cause an endangerment to public drinking water supplies;
2. Any information of a release or discharge of hazardous waste, or of a fire or explosion from the hazardous waste management facility, which could threaten the environment or human health; and *[40 CFR 270.30(l)(6)(i)]*
3. Incidents and releases which may endanger human health or the environment, and spills in excess of Reportable Quantities, shall be reported directly to the NDEP Reporting Hotline at (888) 331-6337 or (775) 687-9485.

1.5.14.7.2 The description of the occurrence and its cause shall include:

1. Name, address, and telephone number of the owner or operator;
2. Name, address, and telephone number of the facility;
3. Date, time, and type of incident;
4. Name and quantity of material(s) involved;
5. The extent of injuries, if any;
6. An assessment of actual or potential hazards to the environment and human health outside the facility, where this is applicable; and
7. Estimated quantity and disposition of recovered material that resulted from the incident.

[40 CFR 270.30(l)(6)(ii)]

1.5.14.7.3 A written submission shall also be provided within five (5) days of the time the Permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period(s) of noncompliance (including exact dates and times); and, if the noncompliance has not been corrected, the anticipated time it is expected to

continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. The Director may waive the five-day written notice requirement in favor of a written report within fifteen (15) days. *[40 CFR 270.30(l)(6)(iii)]*

1.5.14.7.4 In the event of a release to the environment, the Permittee shall submit a report to the Director within thirty (30) days of the detection of the release. The report shall contain the following information: *[40 CFR 264.196(d)(3)]*

1. Likely route of migration of the release;
2. Characteristics of the surrounding soil (soil composition, geology, hydrogeology, climate);
3. Results of any monitoring or sampling conducted in connection with the release (if available). If sampling or monitoring data relating to the release are not available within 30 days, these data must be submitted to the Director as soon as they become available;
4. Proximity to downgradient drinking water, surface water, and populated areas; and
5. Descriptions of response actions taken or planned.

1.5.14.8 Manifest Discrepancy Report

If a significant discrepancy in a manifest is discovered, the Permittee must attempt to reconcile the discrepancy. If not resolved within fifteen (15) days, the Permittee must submit a letter report, including a copy of the manifest, to the Director. (See 40 CFR 264.72)
[40 CFR 270.30(l)(7)]

1.5.14.9 Unmanifested Waste Report

This report must be submitted to the Director within fifteen (15) calendar days of receipt of unmanifested waste. (See 40 CFR 264.76) *[40 CFR 270.30(l)(8)]*

1.5.14.10 Biennial Report

A Biennial Report must be submitted by March 1st of each even numbered year, covering facility activities during the previous calendar year and the information in 40 CFR 264.75.
[40 CFR 270.30(l)(9)]

1.5.14.11 Other Noncompliance

The Permittee shall report all instances of noncompliance not otherwise required to be reported above. Any such information shall be reported orally within 24-hours from the time the Permittee becomes aware of the circumstances. A written report shall be submitted within fifteen (15) days and shall contain the information listed in Permit Condition 1.5.14.7.
[40 CFR 270.30(l)(10)]

1.5.14.12 Other Information

Whenever the Permittee becomes aware that they failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Director, the Permittee shall promptly submit such facts or information.
[40 CFR 270.30(l)(11)]

1.5.15 Information Repository

The Permittee shall maintain the information repository created in support of all permit applications, renewals and modifications pursuant to 40 CFR 124.33(c) through (f) for the life of the facility. *[40 CFR 270.30(m)]*

1.6 REPORTS, NOTIFICATIONS, AND SUBMISSIONS TO THE DIRECTOR

All reports, notifications, or other submissions required by this Permit must be sent to the addressee shown below and must be **received by** the specified due date:

RCRA Permitting Branch Supervisor
Bureau of Sustainable Materials Management
Nevada Division of Environmental Protection
901 S. Stewart Street, Suite 4001
Carson City, NV 89701-5249

Submittals which are not received within ten (10) days after the specified due date will be considered an instance of noncompliance with the applicable conditions of this Permit, unless the Permittee can demonstrate (e.g., certified mail receipt, etc.) that the submittal was sent in a timely manner and that failure of deliverables to arrive on schedule was beyond control of the Permittee.

1.7 CONFIDENTIAL INFORMATION

In accordance with 40 CFR 270.12, the Permittee may claim confidential, any information required to be submitted by this Permit.

1.8 DOCUMENTS TO BE MAINTAINED AT THE FACILITY

The Permittee shall maintain at the facility, until closure is completed and certified by an independent qualified Professional Engineer, the following documents and all amendments, revisions and modifications to these documents:

1. Waste Analysis Plan, as required by 40 CFR 264.13 and this Permit;
2. Inspection Schedules, as required by 40 CFR 264.15(b)(2) and this Permit;
3. Personnel Training Documents and Records, as required by 40 CFR 264.16(d) and this Permit;
4. Contingency Plan, as required by 40 CFR 264.53(a) and this Permit;
5. Operating Record, as required by 40 CFR 264.73 and this Permit;
6. Closure Plan, as required by 40 CFR 264.112(a) and this Permit;
7. Information Repository as required by 40 CFR 270.30(m) and this Permit;
8. All Soil Sampling and Groundwater Monitoring Records, inclusive of installation details for all wells, as required by this Permit or otherwise;
9. Corrective Action Plans and Reports;
10. All instances of implementation of the Contingency Plan;
11. All correspondence between the Division and the facility related to changes or modifications to this Permit or notifications of non-compliance and all inspection reports; and
12. Unusual Occurrence Reports (examples: all manifest discrepancies, deficiencies found as a

result of an inspection, all releases whether contained by secondary containment or not, all injuries to personnel, all activations of the alarm system, any non-compliance with this Permit, etc.).

1.9 PERMIT COMPLIANCE SCHEDULES

Refer to specific sections of this Permit for any compliance schedules established by the Director.

2. SUMMARY

The Permittee is required to operate the facility consistent with the accepted practices detailed in this and other sections of this Permit and the corresponding Permit Application in order to minimize the possibility of releases to the environment or harm to either employees or the public at large.

2.1 DESIGN AND OPERATION OF FACILITY

The Permittee shall construct, maintain and operate the facility to minimize the possibility of an unintentional fire, explosion, or any unplanned, sudden or non-sudden release of hazardous waste constituents to air, soil, or surface water which could threaten human health or the environment, as required by 40 CFR 264.31 and in accordance with the management practices and procedures specified in the Permit Application.

2.2 REQUIRED NOTICES

2.2.1 Hazardous Waste Imports

The Permittee is prohibited from receiving hazardous waste from a foreign source.

2.2.2 Hazardous Waste from Off-Site Sources

Except as provided in Paragraphs 2.2.2.1 through 2.2.2.3, below, the Permittee is prohibited from receiving hazardous waste from an off-site source, unless approved in writing by the Administrator.

2.2.2.1 The Permittee may accept waste generated from the treatment activities at the Hawthorne Army Depot New Bomb Facility (EPA ID# NV5210090010).

2.2.2.2 If necessary, the Permittee may accept waste munitions/explosives seized or confiscated within Nevada by law enforcement agencies and/or military organizations if the seized material is consistent in composition with waste approved in the Permit for treatment at the site.

2.2.2.3 The Permittee may accept waste munitions generated from other Department of Defense facilities that is destined for:

1. Treatment at the RF-9, PODS or BEDS incinerators;
2. Treatment at Old Bomb or New Bomb; or
3. Exempt treatment (recycling) at WADF or NUWC.

2.3 GENERAL WASTE ANALYSIS

The Permittee shall comply with the waste analysis requirements of 40 CFR 264.13, follow the Waste Analysis Plan procedures of Permit Application Appendix B and the conditions listed below.

2.3.1 The Permittee shall verify the analysis of each waste stream at least annually or anytime there is a change in the waste stream, as part of its quality assurance program, in accordance with Test

Methods for Evaluating Solid Waste: Physical/Chemical Methods, EPA Publication SW-846, or an equivalent method, as specified in the Waste Analysis Plan and approved by the Director. At a minimum, the Permittee shall maintain proper functional instruments, use approved sampling and analytical methods, verify the validity of sampling and analytical procedures, and perform correct calculations. If the Permittee uses a contract laboratory to perform analyses, then the Permittee shall inform the laboratory in writing that it must use analytical methods and operate under the waste analysis conditions set forth in this Permit.

2.4 SECURITY

The Permittee shall comply with the security provisions of 40 CFR 264.14 and the Security Procedures in Permit Application Sections C (Procedures to Prevent Hazards at RCRA Units on Main Base, Old Bomb, RF-9, PODS, and BEDS), P (Process Information for APE 2210 (RF-9) Deactivation Furnace), S (Process Information for PODS), and V (Process Information for BEDS).

2.5 GENERAL INSPECTION REQUIREMENTS

The Permittee shall comply with the Inspection Plan requirements of 40 CFR 264.15 and follow the Inspection Plan procedures in Permit Application Sections C (Procedures to Prevent Hazards at RCRA Units on Main Base, Old Bomb, RF-9, PODS and BEDS), N (Process Information for Old Bomb), K (Container Use and Management Description for Hazardous Waste Storage Buildings), L (Container Use and Management Description for Hazardous Waste Munition Items Storage magazines), P (Process Information for APE 2210 (RF-9) Deactivation Furnace), S (Process Information for PODS), and V (Process Information for BEDS). The Permittee shall remedy any deterioration or malfunction discovered by an inspection, as required by 40 CFR 264.15(c). Records of all inspections shall be kept, as required by 40 CFR 264.15(d).

2.6 PERSONNEL TRAINING

The Permittee shall conduct personnel training, as required by 40 CFR 264.16. This training program shall follow the outline in Permit Application Section E (Personnel Training Program), and maintain training documents and records, as required by 40 CFR 264.16(d) and (e).

2.6.1 Training Program

2.6.1.1 Facility Personnel

Facility personnel must successfully complete a program of classroom instruction or on-the-job training that teaches them to perform their duties in a way that ensures the facility's compliance with the requirements of this Permit. The Permittee must ensure that this program includes all the elements described in the document required under 40 CFR 264.16(d)(3).

[40 CFR 264.16(a)(1)]

2.6.1.2 Instructor Qualifications

The training program must be directed by a person trained in hazardous waste management procedures. *[40 CFR 264.16(a)(2)]*

2.6.1.3 Training Content

The training program must include instruction which teaches facility personnel hazardous waste management procedures (including contingency plan implementation) relevant to the positions in which they are employed. *[40 CFR 264.16(a)(2)]*

2.6.1.4 Emergency Response

2.6.1.4.1 At a minimum, the training program must be designed to ensure that facility personnel are able to respond effectively to emergencies by familiarizing them with emergency procedures, emergency equipment, and emergency systems, including, where applicable:

[40 CFR 264.16(a)(3)]

1. Procedures for using, inspecting, repairing, and replacing facility emergency and monitoring equipment;
2. Key parameters for automatic waste feed cut-off systems;
3. Communications or alarm systems;
4. Response to fires or explosions;
5. Response to ground-water contamination incidents; and
6. Shutdown of operations.

2.6.1.4.2 For facility employees that receive emergency response training pursuant to Occupational Safety and Health Administration (OSHA) regulations 29 CFR 1910.120(p)(8) and 1910.120(q), the facility is not required to provide separate emergency response training pursuant to this Permit Section, provided that the overall facility training meets all the requirements of this Permit. *[40 CFR 264.16(a)(4)]*

2.6.2 Training Schedule

Facility personnel must successfully complete the program required in Permit Condition 2.6.1 within six months after the date of their employment or assignment to the facility, or to a new position at the facility, whichever is later. Newly hired employees must not work in unsupervised positions until they have successfully completed the training requirements in Permit Conditions 2.6.1.1 through 2.6.1.4, above. *[40 CFR 264.16(b)]*

2.6.3 Annual Review

Facility personnel must take part in an annual review of the initial training required in Permit Condition 2.6.1, above. *[40 CFR 264.16(c)]*

2.6.4 Documentation

The Permittee must maintain the following documents and records at the facility:

[40 CFR 264.16(d)]

1. The job title for each position at the facility related to hazardous waste management, and the name of the employee filling each job;
2. A written job description for each position listed under (1), above. This description may be consistent in its degree of specificity with descriptions of other similar positions in the same

company location or bargaining unit, but must include the requisite skill, education, or other qualifications, and duties of employees assigned to each position;

3. A written description of the type and amount of both introductory and continuing training that will be given to each person filling a position listed under (1), above; and
4. Records that document that the training or job experience required under Permit Conditions 2.6.1, 2.6.2 and 2.6.3, above, has been given to, and completed by, facility personnel.

2.6.5 Recordkeeping

Training records on current personnel must be kept until closure of the facility; training records on former employees must be kept for at least three years from the date the employee last worked at the facility. Personnel training records may accompany personnel transferred within the same company. *[40 CFR 264.16(e)]*

2.7 SPECIAL PROVISIONS

2.7.1 Special Provisions for Ignitable, Reactive, or Incompatible Waste

The Permittee shall comply with the requirements of 40 CFR 264.17 and follow the procedures for handling ignitable, reactive, and incompatible wastes set forth in Permit Application Sections C, K, L, P, S, and V. *[40 CFR 264.17]*

2.8 RESTRICTED WASTES

The Permittee is not authorized to receive, treat, store, dispose of, or otherwise manage the following wastes:

1. Waste that is not identified in:
   a. Permit Section 3.3;
   b. Permit Section 6.2;
   c. Permit Section 7A.2;
   d. Permit Section 7B.2; or
   e. Permit Section 7C.2.
2. Any radioactive material that is not exempt from regulation and licensing or is not expressly authorized for storage or treatment under this Permit or any radioactive or nuclear waste material, which requires specific licensing or permitting under any other rules of state or federal authorities for disposal or transshipment;
3. Compressed or pressurized gases which are a hazardous waste (not to include aerosol spray containers);
4. Any offsite generated material with PCBs greater than 50 ppm;
5. Chemical Munitions, Biological Agents, Etiologic Agents or infectious wastes;
6. Waste generated off-site, except as provided by Permit Condition 2.2.2;
7. The hazardous waste described as “prohibited” in:
   a. Permit Section 3.3;
   b. Permit Section 6.2;
   c. Permit Section 7A.2;
   d. Permit Section 7B.2; or
   e. Permit Section 7C.2.

2.9 LOCATION STANDARDS

2.9.1 Seismic Considerations

The hazardous waste storage buildings and Old Bomb unit are not new facilities and, thus, the seismic standard requirements do not apply to them. The Western Area Demilitarization Facility (WADF) is not located within 200 feet of a fault with Holocene displacement.

[40 CFR 264.18(a)]

2.9.2 Floodplains

Levees and drainage ditches have been installed around HWAD, helping to prevent flooding. Also, there is a 2-foot high berm surrounding the small-scale local wash near Building 117-13, preventing washout. The Permittee shall maintain the levees, drainage ditches and floodwater berms throughout the facility to prevent washout of any hazardous waste by a 100-year flood, as required by 40 CFR 264.18(b)(1), in accordance with Permit Application Pages A-17 and A-18 (Floodplain Standard).

2.10 PREPAREDNESS AND PREVENTION

2.10.1 Required Equipment

At a minimum, the Permittee shall maintain at the facility the equipment as required by 40 CFR 264.32 and as set forth in the "Preparedness and Prevention" portion of Section C and the Contingency Plan (Appendix C) in the Permit Application. *[40 CFR 264.32]*

2.10.2 Testing and Maintenance of Equipment

The Permittee shall test and maintain the equipment specified in Permit Condition 2.10.1, as necessary, to assure its proper operation in time of emergency (see inspection schedules in Tables C-1, C-7, C-8, C-10, C-11, K-2 and N-1 of the Permit Application), as required by 40 CFR 264.33.

[40 CFR 264.33]

2.10.3 Access to Communications or Alarm System

2.10.3.1 Whenever hazardous waste is being poured, mixed, spread, or otherwise handled, all personnel involved in the operation must have immediate access to an internal alarm or emergency communication device, either directly or through visual or voice contact with another employee. *[40 CFR 264.34(a)]*

2.10.3.2 If there is ever just one employee on the premises while the facility is operating, he must have immediate access to a device, such as a telephone (immediately available at the scene of operation) or a hand-held two-way radio, capable of summoning external emergency assistance. *[40 CFR 264.34(b)]*

2.10.4 Required Aisle Space

The Permittee shall maintain a minimum of three (3) feet of aisle space between container rows to facilitate inspections and the movement of emergency equipment and personnel.

[40 CFR 264.35]

2.10.5 Arrangements with Local Authorities

The Permittee shall maintain the arrangements with State and local authorities as required by 40 CFR 264.37 and described on Page C-13 in Permit Application Section C. If any State or local officials refuse to enter into such arrangements, the Permittee must document the refusal in the Operating Record. *[40 CFR 264.37]*

2.11 CONTINGENCY PLAN

The Permittee must have a Contingency Plan for the facility which is designed to minimize hazards to human health or the environment from fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste. *[40 CFR 264.51(a)]*

2.11.1 Implementation of Plan

The Permittee shall immediately carry out the provisions of the RCRA Contingency Plan, Appendix C of the Permit Application, whenever there is a fire, explosion, or release of hazardous waste or hazardous waste constituents, which could threaten human health or the environment. *[40 CFR 264.51(b)]*

2.11.2 Copies of Plan *[40 CFR 264.53]*

A copy of the Contingency Plan and all revisions to the plan must be:

1. Maintained at the facility; and
2. Submitted to all local police departments, fire departments, hospitals, and State and local emergency response teams that may be called upon to provide emergency services.

2.11.3 Amendments to Plan *[40 CFR 264.54]*

The Contingency Plan must be reviewed, and immediately amended, if necessary, whenever:

1. The facility Permit is revised;
2. The plan fails in an emergency;
3. The facility changes – in its design, construction, operation, maintenance, or other circumstances – in a way that materially increases the potential for fires, explosions, or releases of hazardous waste or hazardous waste constituents, or changes the response necessary in an emergency;
4. The list of emergency coordinators changes; or
5. The list of emergency equipment changes.

2.11.4 Emergency Coordinator

2.11.4.1 A qualified emergency coordinator shall be available at all times in case of an emergency, as required by 40 CFR 264.55. *[40 CFR 264.55]*

2.11.4.2 The Emergency Coordinator shall comply with the emergency procedures described in 40 CFR 264.56 and Section 2.1 of Appendix C (Hazardous Materials/Waste Contingency Plan) in the Permit Application. *[40 CFR 264.56]*

2.12 MANIFEST SYSTEM

The Permittee shall comply with the manifest requirements of 40 CFR 264.71, 264.72, 264.76, and NAC 444.8666(1)[1], and follow the procedures in Pages D-1 thru D-3 (Manifest Handling Requirements [40 CFR 264.70(c)]) of Permit Application Section D (Documentation of Compliance for Main Base), consistent with: *[40 CFR 264.71 and 264.72]*

1. Signing and dating each copy of the manifest to certify that the hazardous waste covered by the manifest was received[2];
2. Noting any significant discrepancies in the manifest as defined below, on each copy of the manifest:
   a. Waste Types - Manifest discrepancies between the type of hazardous waste designated on the manifest or shipping paper, and the type of hazardous waste the facility actually receives, or obvious differences which can be discovered by inspection or waste analysis, such as waste solvent substituted for waste acid, or toxic constituents not reported on the manifest or shipping paper; or
   b. Waste Quantities - For bulk waste, variations greater than 10 percent in weight, for batch waste, any variation in piece count, such as a discrepancy of one drum in a truckload.
3. Immediately give the transporter at least one copy of the signed manifest;
4. Within thirty (30) days after the delivery, send a copy of the manifest to the generator;
5. Retaining at the facility a copy of each manifest for at least three years from the date of delivery; and
6. Complying with the manifest discrepancies requirements of 40 CFR 264.72 by reconciling the discrepancy with the waste generator or transporter (e.g., with telephone conversations). If the discrepancy is not resolved within fifteen (15) days after receiving the waste, the Permittee must immediately submit to the Director a letter describing the discrepancy and attempts to reconcile it, and a copy of the manifest or shipping paper.

2.13 RECORDKEEPING AND REPORTING

In addition to recordkeeping, reporting, and fee requirements specified elsewhere in this Permit, the Permittee shall do the following:

2.13.1 Operating Record

2.13.1.1 The Permittee shall maintain a written operating record at the facility, in accordance with Pages D-4 thru D-5 (Operating Record and Availability, Retention, and Disposition of Records) in Permit Application Section D and as required by 40 CFR 264.73. *[40 CFR 264.73]*

2.13.1.2 The Permittee shall maintain at the facility copies of waste minimization documents required in Permit Section 8 and shall make them available to any authorized representative of the

[1] Compliance with EPA's new Hazardous Waste Electronic Manifest (*e*-Manifest) System and User Fee Final Rule [*https://www.gpo.gov/fdsys/pkg/FR-2018-01-03/pdf/2017-27788.pdf]* is required.

[2] [*Comment:* The Division does not intend that the Permittee (who performs procedures under 40 CFR 264.13(c)) perform that analysis before signing the manifest and returning it to the transporter. 40 CFR 264.72(b), however, requires reporting an unreconciled discrepancy discovered during later analysis.]

Division or USEPA conducting an inspection. *[40 CFR 264.74]*

2.13.2 Quarterly Volume Reports and Fees

The Permittee shall submit to the Director a detailed quarterly volume breakdown report along with the quarterly volume fees due and the e-payment receipt within thirty (30) days after the end of each calendar quarter. *[NAC 444.8452]*

2.13.3 Annual Operating Fee

The Permittee shall, on or before March 1st of each year, pay to the Division the annual operating fee. *[NAC 444.845]*

2.13.4 Biennial Reports

The Permittee shall comply with the reporting requirements of 40 CFR 264.75 by submitting a report to the Division by March 1st of each even numbered year for the previous operating year.

2.14 GENERAL CLOSURE REQUIREMENTS

2.14.1 Performance Standard

The Permittee shall close the facility, as required by 40 CFR 264.111 and in accordance with the approved Closure Plans in the Permit Application Section M (Closure Plans, Post-Closure Plans, and Financial Requirements for Hazardous Waste Storage Buildings and Magazines), Section O (Closure Plans, Post-Closure Plans, and Financial Requirements for Old Bomb), Section R (Closure Plan for RF-9), Section U (Closure Plan for PODS), and Section X (Closure Plan for BEDS) and in a manner that:

1. Minimizes the need for further maintenance;
2. Controls, minimizes or eliminates, to the extent necessary to protect human health and the environment, post-closure escape of hazardous waste, hazardous constituents, leachate, contaminated run-off, or hazardous waste decomposition products to the ground or surface waters or to the atmosphere; and
3. Complies with the closure requirements of 40 CFR 264.111.

2.14.2 Amendment to Closure Plan

The Permittee shall submit a written request for a permit modification, as described in 40 CFR 264.112(c) and Permit Condition 1.2.1, for any changes in the approved closure plan. *[40 CFR 264.112(c)]*

2.14.3 Notification of Closure

The Permittee shall notify the Director in writing at least sixty (60) days prior to the date on which the facility expects to begin partial or final closure of the facility and must fulfill the requirements of 40 CFR 264.112(d).

2.14.4 Time Allowed for Closure

After receiving the final volume of hazardous waste in any or all of the regulated units, the

Permittee shall treat and remove from the unit or facility, all hazardous wastes and shall complete closure activities, in accordance with 40 CFR 264.113 and the schedules specified in Permit Application Sections M, O, R, U, and X, as determined by the Director. *[40 CFR 264.113]*

2.14.5 Disposal or Decontamination of Equipment, Structures, and Soils

The Permittee shall decontaminate or ship offsite all contaminated equipment, structures, and soils, as required by 40 CFR 264.114 and the approved Closure Plans. In the event not all structures, soils or equipment can be decontaminated or shipped offsite, the Permittee shall submit a formal permit modification to close the facility and provide post-closure care in accord with 40 CFR 264 Subparts G, J and X. *[40 CFR 264.114]*

2.14.6 Certification of Closure

The Permittee shall certify that a portion or all of the facility has been closed in accordance with the specifications in the approved Closure Plans (Permit Application Sections M, O, R, U and X), and as required by 40 CFR 264.115. *[40 CFR 264.115]*

2.15 FINANCIAL REQUIREMENTS FOR FACILITY CLOSURE

Being a government-owned facility, the Permittee is exempt from the financial assurance requirements for facility closure. See Permit Section 14. *[40 CFR 264.140(c)]*

2.16 LIABILITY REQUIREMENTS

Being a government-owned facility, the Permittee is exempt from the financial liability requirements of 40 CFR 264.147(a) and (b).

2.17 COMPLIANCE SCHEDULE

	Task	Date Due
1	*Reserved*	

3. SUMMARY

The Permittee is allowed to store waste in containers subject to the terms and conditions of this Permit, as described in this Section. Containers of hazardous waste are managed in the permitted areas noted in Section F (Waste Storage Characteristics for Main Base) of the Permit Application. Containerized wastes, both liquids and solids, are accepted and stored while awaiting treatment and/or shipment off-site to other permitted facilities. The storage areas and specific management requirements of each area are specified below, and in the respective sections of the Permit Application.

3.1 CONTAINER STORAGE

The container storage areas are identified in Section K (Container Use and Management Description for Hazardous Waste Storage Buildings) and Section L (Container Use and Management Description for Hazardous Waste Munition Items Storage Magazines) of the Permit Application, and summarized in Table 3.3, below. The actual locations of these container storage areas can be seen in Figures A-3 and A-4 of the Permit Application. The maximum amount and type of wastes that may be handled are discussed below, in Permit Condition 3.3.

3.2 CONTAINER-SPECIFIC INFORMATION TO BE MAINTAINED AT THE FACILITY

The Permittee shall maintain at the facility the following container-specific documents and information, including all amendments, revisions and modifications to these documents and information. These documents shall be maintained in the operating record until closure is completed for all container storage areas and certified by a qualified Professional Engineer.

3.2.1 A description of the containment systems, showing the following:

1. Basic design parameters, dimensions, and materials of construction;
2. How the design promotes drainage, or how containers are kept from contact with standing liquids in the containment system;
3. Capacity of the containment system, relative to the number and volume of containers to be stored;
4. Provisions for preventing or managing run-on; and
5. How accumulated liquids can be analyzed and removed to prevent overflow.

3.2.2 For container storage areas holding wastes that do not contain free liquids, the Permittee shall maintain the following documentation onsite:

1. Test procedures and results, or other documentation or information, to show that the wastes do not contain free liquids;
2. A description of how the storage area is designed or operated to drain and remove liquids, or how containers are kept from contact with standing liquids;
3. Sketches, drawings, or data demonstrating compliance with 40 CFR 264.176 (location of buffer zone (15m or 50ft) and containers holding ignitable or reactive wastes) and 40 CFR 264.177(c) (location of incompatible wastes in relation to each other), where applicable; and
4. Where incompatible wastes are stored or otherwise managed in containers, a description of the procedures used to ensure compliance with 40 CFR 264.177(a) and (b), and 264.17.

3.3 PERMITTED AND PROHIBITED WASTE IDENTIFICATION

3.3.1 The Permittee shall only accept the hazardous wastes identified in Part A of the Permit Application, and as detailed in Permit Application Sections F, K and L, for the purposes of container storage at the facility, subject to the terms and limitations of this Permit. *[See also NAC 444.843]*

3.3.2 The Permittee is prohibited from treating waste which is generated offsite in containers[i]. Treatment is defined as "…any method, technique, or process, including neutralization, designed to change the physical, chemical, or biological character or composition of any hazardous waste so as to neutralize such waste, or so as to recover energy or material resources from the waste, or so as to render such waste non-hazardous, or less hazardous; safer to transport, store or dispose of; or amenable for recovery, amenable for storage, or reduced in volume". (Note: Treatment does not include the addition of absorbent for incidental liquids spills.) *[40 CFR 260.10]*

3.3.3 The Permittee may store hazardous waste in the container storage areas, as listed in Table 3.3, below, and in accordance with Sections F, K and L of the Permit Application.

Table 3.3

Container Storage Units	Maximum Capacity		Waste Codes	Summary Restrictions
Building 106-22	Total	1620 Drums[ii]	Table F-1[iii]	No Explosives
	Cell 1	136 Drums		
	Cell 2	288 Drums		
	Cell 3	216 Drums		
	Cell 4	980 Drums		
Building 106-23	Total	1344 Drums	Table F-2[iii]	No Explosives
	Cell 1	160 Drums		
	Cell 2	560 Drums		
	Cell 3	168 Drums		
	Cell 4	96 Drums		
	Cell 5	176 Drums		
	Cell 6	184 Drums		
Building 115-9	Total	624 Drums	Table F-3[iii]	Solids contaminated with explosives are accumulated here, or in Building 113-73A
	Cell 1	96 Drums		
	Cell 2	192 Drums		

[i] Treatment of hazardous waste generated onsite (i.e. battery fluid waste) in containers at Main Base is allowed as long as the container in which the treatment takes place meets the definition of a container, the applicable provisions of 40 CFR 265 (e.g., Subpart I for containers) are followed, and the time limits and other applicable requirements of 40 CFR 262.34 are met.

[ii] "Drums" refers to 55-gallon drums.

[iii] Table in Part B Permit Application.

Container Storage Units	Maximum Capacity		Waste Codes	Summary Restrictions
	Cell 3	192 Drums		
	Cell 4	144 Drums		
Building 113-73A	384 Drums		Table F-4[iii]	No free liquids[iv]; Solids contaminated with explosives are accumulated here, or in Building 115-9
Magazine 116-37	Arch A	96 pallets, 4000 lb/pallet 125,000 lb NEW[v] 384 55-gallon drums	D003, D005, D008, D009, D030	Solids only[iv]; may only store hazardous waste munitions.
	Arch C	96 pallets, 4000 lb/pallet 125,000 lb NEW 384 55-gallon drums		
	Arch E	96 pallets, 4000 lb/pallet 125,000 lb NEW 384 55-gallon drums		
Magazine 116-38	Arch A	96 pallets, 4000 lb/pallet 125,000 lb NEW 384 55-gallon drums	D003, D005, D008, D009, D030	Solids only[iv]; may only store hazardous waste munitions.
	Arch C	96 pallets, 4000 lb/pallet 125,000 lb NEW 384 55-gallon drums		
	Arch E	96 pallets, 4000 lb/pallet 125,000 lb NEW 384 55-gallon drums		
Magazine 116-39	Arch A	96 pallets, 4000 lb/pallet 125,000 lb NEW 384 55-gallon drums	D003, D005, D008, D009, D030	Solids only[iv]; may only store hazardous waste munitions.
	Arch C	96 pallets, 4000 lb/pallet 125,000 lb NEW 384 55-gallon drums		
	Arch E	96 pallets, 4000 lb/pallet 125,000 lb NEW 384 55-gallon drums		
Magazine 116-41	Arch A	96 pallets, 4000 lb/pallet 125,000 lb NEW 384 55-gallon drums	D003, D005, D008, D009, D030	Solids only[iv]; may only store hazardous waste munitions.

[iv] As determined by the Paint Filter Test, Method 9095 in SW-846 or other accepted documentation
[v] NEW is Net Explosive Weight

Container Storage Units	Maximum Capacity		Waste Codes	Summary Restrictions
	Arch C	96 pallets, 4000 lb/pallet 125,000 lb NEW 384 55-gallon drums		
	Arch E	96 pallets, 4000 lb/pallet 125,000 lb NEW 384 55-gallon drums		
Magazine 116-42	Arch A	96 pallets, 4000 lb/pallet 125,000 lb NEW 384 55-gallon drums	D003, D005, D008, D009, D030	Solids only[iv]; may only store hazardous waste munitions.
	Arch C	96 pallets, 4000 lb/pallet 125,000 lb NEW 384 55-gallon drums		
	Arch E	96 pallets, 4000 lb/pallet 125,000 lb NEW 384 55-gallon drums		
Magazine 116-43	Arch A	96 pallets, 4000 lb/pallet 125,000 lb NEW 384 55-gallon drums	D003, D005, D008, D009, D030	Solids only[iv]; may only store hazardous waste munitions.
	Arch C	96 pallets, 4000 lb/pallet 125,000 lb NEW 384 55-gallon drums		
	Arch E	96 pallets, 4000 lb/pallet 125,000 lb NEW 384 55-gallon drums		
Magazine 116-44	Arch A	96 pallets, 4000 lb/pallet 125,000 lb NEW 384 55-gallon drums	D003, D005, D008, D009, D030	Solids only[iv]; may only store hazardous waste munitions.
	Arch C	96 pallets, 4000 lb/pallet 125,000 lb NEW 384 55-gallon drums		
	Arch E	96 pallets, 4000 lb/pallet 125,000 lb NEW 384 55-gallon drums		
Magazine 116-45	Arch A	96 pallets, 4000 lb/pallet 125,000 lb NEW 384 55-gallon drums	D003, D005, D008, D009, D030	Solids only[iv]; may only store hazardous waste munitions.
	Arch C	96 pallets, 4000 lb/pallet 125,000 lb NEW 384 55-gallon drums		
	Arch E	96 pallets, 4000 lb/pallet 125,000 lb NEW 384 55-gallon drums		

3.3.4 The Permittee may store hazardous waste for up to one (1) year in the container storage units, as listed in Table 3.3, above. *[40 CFR 268.50(b)]*

3.3.5 Aisle space shall be maintained, as noted in Permit Application Sections K (Container Use and Management Description for Hazardous Waste Storage Buildings) and L (Container Use and Management Description for HW Munition Items Storage Magazines). Rows of containers shall be separated by a minimum aisle space of three (3) feet and containers shall be stacked no more than two (2) high. *[40 CFR 264.35]*

3.3.6 The Permittee shall not store or place any hazardous waste (whether accepted from offsite or generated onsite), which contains free liquids, as determined by the Paint Filter Test (EPA method 9095 in SW 846) or other acceptable documentation, in an area that does not meet the requirements of 40 CFR 264.175(b).

3.3.7 Any container of liquid hazardous waste shall be stored completely within the secondary containment area. *[40 CFR 264.175(c)]*

3.4 CONDITION OF CONTAINERS

If a container holding hazardous waste is not in good condition (e.g., severe rusting, apparent structural defects) or if it begins to leak, the Permittee shall transfer the hazardous waste from such container to a container that is in good condition or otherwise manage the waste in compliance with the Permit Application Sections K and L. *[40 CFR 264.171]*

3.5 COMPATIBILITY OF WASTE WITH CONTAINERS

The Permittee shall use a container made of, or lined with, materials which will not react with, and are otherwise compatible with, the hazardous waste to be stored. The hazardous waste will be stored so that the ability of the container to contain the waste is not impaired, in accordance with Sections K and L of the Permit Application. *[40 CFR 264.172]*

3.6 MANAGEMENT OF CONTAINERS

The Permittee shall keep all containers closed during storage, except when it is necessary to add or remove waste, and shall not open, handle, or store containers in a manner which may rupture the container or cause it to leak. The Permittee shall follow the container management practices described in Permit Application Sections K and L. *[40 CFR 264.173]*

3.7 INSPECTION SCHEDULES AND PROCEDURES

The Permittee shall inspect all container areas in accordance with the Inspection Schedules described in Permit Application Sections K and L, to detect leaking containers, improperly labeled containers, deterioration of containers and/or the containment system caused by corrosion and other factors. At a minimum, inspections shall be completed at least weekly and documentation retained in the operating record. *[40 CFR 264.174]*

3.8 CONTAINMENT SYSTEMS

The Permittee shall maintain the secondary containment systems for the Container Management Areas, as required by 40 CFR 264.175, and as detailed in Permit Application Section K.

3.9 RECORDKEEPING

3.9.1 The Permittee shall place the results of all waste analyses, trial tests and inspections in the operating record and be maintained for at least five (5) years

[40 CFR 264.73]

3.9.2 The Permittee must document compliance with 40 CFR 264.17(a) and (b), 264.176 and 264.177 in the facility operating record, as required by Permit Condition 2.13.1. *[40 CFR 264.17(c)]*

3.10 SPECIAL CONTAINER PROVISIONS FOR IGNITABLE OR REACTIVE WASTE

3.10.1 The Permittee shall not locate containers holding ignitable or reactive waste within fifty (50) feet (15 meters) of the facility's property line, as required by 40 CFR 264.176.

3.10.2 The Permittee shall take precautions to prevent accidental ignition or reaction of ignitable or reactive waste as required by 40 CFR 264.17 and 264.176, and follow the procedures specified in the Container Management Plans in Permit Application Sections K and L.

3.11 SPECIAL CONTAINER PROVISIONS FOR INCOMPATIBLE WASTE

3.11.1 The Permittee shall not place incompatible wastes or incompatible wastes and materials in the same container, unless 40 CFR 264.17(b) is complied with. *[40 CFR 264.177(a)]*

3.11.2 The Permittee shall not place hazardous waste in an unwashed container that previously held an incompatible waste or material. *[40 CFR 264.177(b)]*

3.11.3 The Permittee shall completely segregate and separate containers of incompatible wastes or materials in the hazardous waste storage buildings with a berm, fire wall or secondary containment pallet by following the procedures specified in Permit Application Section K, and store containers of incompatible munition wastes in separate hazardous waste storage magazines by following the procedures specified in Permit Application Section L. *[40 CFR 264.177(c)]*

3.12 CONTAINER LABELING REQUIREMENTS

3.12.1 The Permittee must clearly label all containers of hazardous waste with the words "Hazardous Waste"; the date the waste was placed into storage; and the 40 CFR Part 261 EPA hazardous waste number(s) assigned to the waste. *[40 CFR 262.30-262.32 and NAC 444.8671]*

3.12.2 All container hazardous waste labels must be legible and visible for inspection.

3.13 CLOSURE

Upon closure of any container storage areas, the Permittee shall remove all hazardous waste and hazardous waste residues from the containment system or area, as required by 40 CFR 264.178 and in accordance with the closure procedures in the approved Closure Plan (Permit Application Section M). *[40 CFR 264.178]*

3.14 COMPLIANCE SCHEDULE

	Task	Date Due
1	*Reserved*	

Reserved for future use (Tank Storage Conditions)

Reserved for future use (Tank Treatment Conditions)

6. SUMMARY

The Hawthorne Army Depot (HWAD) Main Base facility operates one Subpart X (i.e. Miscellaneous) Unit. The Subpart X Unit is an Open Burn treatment unit commonly referred to as Old Bomb. This unit is located in the southern part of Main Base and is used for treating waste propellants that cannot be reused, recycled, or reutilized. When safety and regulatory requirements allow, propellants are to be processed and/or treated at the HWAD Western Area Demilitarization Facility (WADF) rather than open burning.

The authorities for specific requirements of this section of the Permit are pursuant to 40 CFR 264.600 through 264.603. Unless there is a specific regulation adopted by reference and enumerated as required by 40 CFR 270.32, all permit conditions have been established pursuant to 40 CFR 264.601 and any appropriate terms and provisions in Subparts I, O and AA through CC of Part 264. The Old Bomb Unit is permitted under the Subpart X requirements of 40 CFR 264.600 and may include additional requirements pursuant to 40 CFR 270.32(b)(2), as described by the Division, for further protective measures for both human health and environment. The waste propellant treatment process at the Old Bomb Unit must also satisfy the criteria specified by the Air Quality Operating Permit (No. AP9711-0863) issued in accordance with NAC 445B.316 unless otherwise approved by the Administrator in accordance with NAC 445B.22067(2)(a).

6.1 MISCELLANEOUS UNIT DESCRIPTION

The Miscellaneous Unit and surrounding area are not permitted for the storage of hazardous waste.

6.1.1 Old Bomb Unit

The Old Bomb Unit is located on an area of 6.5 acres and is surrounded by a fenced buffer area of approximately 300 acres. The Old Bomb Unit consists of four burn pads, each containing five carbon steel burn pans, burn pan stands and burn pan covers, located at least 150 feet apart. Treatment consists of placing the propellants into the pans and igniting them, in accordance with a specific safety protocol. Operation of the Old Bomb unit is required to be performed in adherence to approved safety procedures provided in Permit Application Section N and is restricted to specific meteorological conditions (i.e. max wind of 15 mph) and maximum treatment amounts. Ongoing sampling of the soils is required for the presence of hazardous constituents contained in the propellants.

6.2 PERMITTED AND PROHIBITED WASTE IDENTIFICATION AND PERMITTED CAPACITY – TREATMENT

The Permittee may treat only those waste identified in Table 6.2, below, in the quantities listed.

Table 6.2 – Subpart X Unit

Description	Permitted Throughput[i]	Permitted EPA Waste Codes
Old Bomb	5000 lb/pad [NEW] 20,000 lb/day [NEW] 975,000 lb/qtr [NEW] 3,900,000 lb/yr[ii] [NEW]	D003, D005, D008, D009, D030

6.2.1 The Permittee may only open burn at the Old Bomb unit, the hazardous waste propellants that have a D003 hazardous waste code as identified in Table N-5 in Section N of the Permit Application.

6.2.2 The Permittee is prohibited from treating the following hazardous wastes in the Old Bomb Unit:

1. Waste that is not identified in Permit Condition 6.2.1;
2. Non-explosive wastes (i.e. do not include D003 waste code);
3. Chemical or biological munitions;
4. Waste generated off-site;
5. Waste propellants for which there is a market for reuse, recycling, reutilization or otherwise amenable to treatment or further processing at the HWAD Western Area Demilitarization Facility (WADF);
6. Waste propellants that can be treated, within safety and Permit requirements, at the RF-9, PODS or BEDS incinerator; and
7. Waste propellants that fail to satisfy the criteria specified by the Air Quality Operating Permit (No. AP9711-0863) unless approved by the Administrator, in accordance with NAC 445B.22067(2)(a).

6.3 CONTAINMENT

As described in Section N of the Permit Application, each burn pan is equipped with a steel precipitation cover, which remains on the burn pan during non-operational periods, minimizing the accumulation of precipitation. Precipitation accumulation during operation is minimized by only operating when precipitation is not expected. To maintain compliance, the burn pans and surrounding areas are inspected before, and all ejected ash/waste is cleaned up after, every open burn event. The land surrounding the burn pans will be kept graded to help control run-on and run-off, and an 18-inch soil stormwater diversion berm will be maintained at least 200 feet from the burn pans.

6.4 OPERATING REQUIREMENTS

The Old Bomb Unit shall be operated in accordance with the requirements of this Permit Section.

6.4.1 The Permittee shall comply with the Environmental Performance Standard provisions of 40 CFR 264.601 by following the operating procedures and controls described in Permit Application

[i] These are Maximum Quantities in Net Explosive Weight (NEW), which may be limited further due to weather conditions, air quality operating permit requirements, facility closure schedule, subsequent risk assessments or non-compliance with existing Permit Conditions.

[ii] Annual Limit listed in Section I (Air Quality Assessments) of the Permit Application.

Sections G (Protection of Groundwater and Subsurface Environment), J (Air Quality Assessments and Noise Information) and N (Process Information for Old Bomb).

6.4.2 The Permittee shall operate in accordance with the Standard Operating Procedures (SOPs) provided in Appendix G of the Permit Application.

6.4.3 The Permittee shall maintain the Old Bomb Unit in accordance with the design plans and specifications contained in Sections, G (Protection of Groundwater and Subsurface Environment), J (Air Quality Assessments and Noise Information) and N (Process Information for Old Bomb) of the Permit Application.

6.4.4 The Permittee shall maintain the Old Bomb Unit and all associated equipment in accordance with the maintenance procedures contained in Section N of the Permit Application.

6.4.5 The Permittee shall maintain a soil perimeter berm as a stormwater diversion located at least 200 feet from the burn pans. The Permittee shall keep a 200-foot area around each burn pan free of vegetation or other combustible material at all times.

6.4.6 The Permittee shall only transport energetic wastes to the Old Bomb Unit that are scheduled to be treated on the same day as they are transported. The Permittee must remove untreated energetics from the Old Bomb Unit at the end of each day. The untreated energetics must be stored in a permitted hazardous waste storage unit as described in Section 3 of this Permit. The Permittee shall follow the procedures described in SOP HW-0000-H-006 in Appendix G of the Permit Application and the following:

6.4.6.1 The hazardous waste transported to Old Bomb shall be offloaded at least 10 feet from the burn pans.

6.4.6.2 After all the hazardous waste to be treated has been offloaded, the vehicle shall be moved to a safe location.

6.4.6.3 The containers shall only be opened after the transport vehicle has been moved to a safe location.

6.4.6.4 All hazardous waste containers shall be opened at least 10 feet from each other and from any previously laid out material.

6.4.6.5 Immediately after each open burn event, ash residue shall be removed from the pans and placed into steel drums, clearly labeled as “Old Bomb Ash Residue."

6.4.6.5.1 Once the drum is full, or will no longer be used to accumulate additional ash residue, the Permittee shall place an accumulation date on the drum and remove it from the Old Bomb unit.

6.4.6.5.2 The Permittee shall store partially full and full steel drums containing ash residue in a hazardous waste storage unit listed in Permit Section 3, except when using the drum to collect ash residue at the Old Bomb Unit.

6.4.6.5.3 If the ash residue is characterized as hazardous waste in accordance with the Waste Analysis Plan in Appendix B of the Permit Application, the Permittee shall place a hazardous waste label on the drum which contains the information required by 40 CFR 262 and NAC 444.8671. The hazardous waste container label shall contain the original accumulation date placed on the container in accordance with Permit Condition 6.4.6.5.1, above.

6.4.7 As a condition of operating the Old Bomb Unit, the Permittee shall at all times properly operate and maintain the munition recycling facilities at the Western Area Demilitarization Facility. Proper operation and maintenance includes effective performance, adequate funding, and adequate operator staffing and training.

6.5 INSPECTION SCHEDULES AND PROCEDURES

6.5.1 The Permittee shall inspect the Old Bomb Unit in accordance with the Inspection Schedule and Checklist described in Tables N-1 and N-2 of the Permit Application.

6.5.2 The Permittee shall inspect the meteorological monitoring station as described in Table N-3 of the Permit Application.

6.5.3 Immediately prior to and after each open burning event, the Permittee shall inspect the Old Bomb Unit in accordance with Table N-2 (Old Bomb Burning Grounds Checklist) of the Permit Application.

6.5.4 The Permittee shall document compliance with Permit Conditions 6.5.1 through 6.5.3 and maintain copies of this documentation at the HWAD Main Base office. *[40 CFR 264.195(h)]*

6.6 ENVIRONMENTAL MONITORING REQUIREMENTS

6.6.1 Soil Monitoring

6.6.1.1 The Permittee shall conduct soil sampling and analysis each calendar quarter in which the unit operated, in accordance with Section 5 of the Environmental Sampling Procedures found in Appendix B (Hawthorne Army Depot Waste Analysis Plan) of the Permit Application

6.6.1.2 The results of soil sampling and analysis shall be kept in the facility's operating record and made available to the Division staff for review during inspections. These results shall be in a tabular format, along with field and lab recordkeeping and QA/QC documentation.

6.6.1.3 In the event of a detection of one of the constituents above the concentration listed in Permit Application Section O and Appendix B, the following steps will be taken:

6.6.1.3.1 Note the location of the detection (i.e. GPS units and grid or collection area number).

6.6.1.3.2 Pursuant to Permit Application Section O and Appendix B, submit a letter to the Division within thirty (30) days of the analytical results with the sampling date, location, constituent(s), and the respective concentration for the sample exceedance.

6.6.1.3.3 Remediate the area four (4) feet surrounding the detection location by removing the impacted soils.

6.6.1.3.4 Re-sample the area at the initial out-of-limit location plus four (4) additional points at the boundary of removed soils.

6.6.1.3.5 Within the next quarter, take samples in the area surrounding the detection location to delineate if soil contamination spans outside of the remediated area.

6.6.1.3.6 Take samples at the same location during future sampling events and continue until two consecutive quarterly samples come back as non-detects.

6.7 RECORDKEEPING AND REPORTING

6.7.1 The Permittee shall record and maintain in the operating record for this permit, all monitoring, maintenance, inspection, calibration and testing data compiled under the requirements of this Permit for at least the past five (5) years *[40 CFR 264.73]*

6.7.2 The Permittee shall submit to the Director the analytical and field data results required by Permit Condition 6.6 in accordance with Table 6.7, below. The data shall be reported in tabular and electronic file format, as approved by the Director, with maps showing the sampling grids and approximate sample locations.

Table 6.7

Quarter		***Due Date***
1	January 1 – March 31	June 30
2	April 1 – June 30	September 30
3	July 1 – September 30	December 31
4	October 1 - December 31	March 30

6.8 CLOSURE AND POST-CLOSURE CARE

6.8.1 At closure of the Old Bomb Unit, the Permittee shall follow the procedures in Section O (Closure Plans, Post-Closure Plans, and Financial Requirements for Old Bomb) of the Permit Application, and the condition below. *[40 CFR 264.114]*

6.8.2 If the Permittee is unable to attain a clean closure, a revised closure plan will be submitted with post-closure requirements, as described on pages O-12 through O-14 (Post-Closure Plan) in Section O of the Permit Application.

6.9 COMPLIANCE SCHEDULE

The Permittee shall perform the following task(s) by the listed due date(s):

	Task	**Date Due**
1	*Reserved*	

7A. SUMMARY

The Hawthorne Army Depot (HWAD) Main Base facility includes three previously permitted incinerators. One of the incinerators is the RF-9 Rotary Furnace Incinerator. This unit is located in the HWAD Western Area Demilitarization Facility (WADF). The RF-9 Incinerator system treats obsolete munitions which are either reactive (D003) or toxic (D005-D009, D030) hazardous waste as defined in 40 CFR 261.23 and 261.24, respectively.

This unit is permitted under the incinerator requirements of 40 CFR 264.340 except as otherwise provided by 264.340(b). The RF-9 incinerator unit is also subject to Maximum Achievable Control Technology (MACT) pursuant to air permitting requirements. Additional requirements pursuant to 40 CFR 270.32(b)(2), as described by the Division for further protective measures for both human health and environment, may also be imposed.

7A.1 INCINERATOR UNIT DESCRIPTION

The RF-9 Incinerator system is located in Building 117-3 in the eastern half of WADF. The incinerator system consists of a rotary furnace with a primary combustion chamber, evaporative cooler system, continuous emission monitoring equipment, a feed conveyor, automatic feed rate controls, and computerized controls. The system has an off-gas pollution control system consisting of two gas heat exchangers, a cyclone dust separator, and a fabric filter (baghouse) dust collector. An automatic waste feed cutoff system is activated when the key operating conditions are not met, or any monitoring device fails to produce a signal.

Key operating conditions and performance standards for the RF-9 system are also covered under 40 CFR 63.1200 (Part 63, Subpart EEE) as established by a Title V Air Quality Permit, issued by NDEP's Bureau of Air Pollution Control (BAPC). See Air Quality Operating Permit No. AP9711-0863 for reference.

7A.2 PERMITTED AND PROHIBITED WASTE IDENTIFICATION AND PERMITTED CAPACITY – TREATMENT

7A.2.1 The Permittee may only treat, in RF-9, the characterized hazardous wastes identified in Table Q-1 in Section Q of the Permit Application, and additional munition waste as approved by the Division under Permit Condition 7A.2.2.

7A.2.2 The Permittee may not treat the uncharacterized munition waste items listed in Table Q-1 in Section Q of the Permit Application, with an "NYC" in the "Gross Feed Rate" column, until these items are adequately characterized for incineration, following the procedures described in the RF-9 Comprehensive Performance Test (CPT) in Appendix E of the Permit Application, and the characterization information and proposed feed rates are submitted to the Director.

7A.2.3 Based upon the initial unit operating specifications, the Permittee shall limit the total quantity of Net Explosive Weight (NEW) in waste munitions to be treated in RF-9 to 500 tons per calendar year. The limit may change and/or more limits may be imposed upon completion of subsequent CPTs and/or Cumulative Human Health and Ecological Risk Assessments (HHERA).

7A.3 INSTRUMENTATION AND OPERATIONAL PERFORMANCE REQUIREMENTS

The conditions of this section pertain to the management of hazardous waste munitions in the following areas of Building 117-3: the rail car storage area, 90-day storage area, the staging and loading area adjacent to the Waste Feed Monitoring System; and operation of the RF-9 Incinerator. In the Building 117-3 hazardous waste munitions management areas, the Permittee is only allowed to manage those hazardous waste munitions that are intended for treatment at the RF-9 Incinerator.

7A.3.1 The Permittee shall maintain the incinerator in accordance with the design plans and specifications contained in Sections P (Process Information for APE 2210 (RF-9) Deactivation Furnace), Q (Waste Feed Characteristics and Waste Characterization General Information for RF-9) and C (Procedures to Prevent Hazards at RCRA Units on Main Base, Old Bomb, RF-9, PODS, and BEDS) of the Permit Application.

7A.3.2 The Permittee shall test all instrumentation in accordance with the design plans, performance specifications, and maintenance procedures contained in Sections P, Q and C of the Permit Application.

7A.3.3 The Permittee shall operate and maintain the RF-9 unit in accordance with the operating requirements specified in this permit and the Maximum Achievable Control Technology (MACT) requirements of 40 CFR Part 63, Subpart EEE. *[40 CFR 264.340(b)(1), 270.19(e)]*

7A.3.4 The quantity of hazardous waste munitions staged by the Permittee in the staging area of Building 117-3 shall not exceed the amount to be fed during sixteen (16) hours of incinerator operation, as determined by the feed rates calculated in accordance with the MACT or any RCRA risk based feed limits, as described Sections P and Q of the Permit Application.

7A.3.5 At a minimum, the Permittee shall maintain at least three (3) feet of aisle space between hazardous waste storage container rows in the staging area to facilitate inspections and movement of equipment and personnel. The Permittee shall not stack hazardous waste munitions in the staging area higher than eight (8) feet.

7A.3.6 The Permittee shall maintain adequate open floor space within Building 117-3 to allow for unencumbered forklift entrance and egress to the staging area.

7A.3.7 The Permittee shall perform the packing and loading of munitions onto the waste feed monitoring system in a manner that minimizes spilling or dispersion of hazardous waste propellants within Building 117-3.

7A.3.8 On the same day that containers of incinerator ash and particles collected from the heat exchangers, cyclone, and baghouse are determined to be full and removed from collection service, the Permittee must remove the generated waste to a 90-day storage area or permitted storage building in accordance with Section 3 of this Permit.

7A.3.9 Except during periods specified in the Permit Conditions for Short-Term Incineration under the Shakedown Period, Trial Burn Period, and Post-Trial Burn Period, the Permittee shall feed the

wastes described in Permit Condition 7A.2 to the incinerator only under the following conditions: *[40CFR 264.340(b) and 40 CFR 264.345]*

7A.3.9.1 Carbon monoxide concentration in the stack exhaust gas, monitored as described on page P-10 (Emissions Control and Monitoring) of the Permit Application, and corrected for the amount of oxygen in the stack gas, shall not exceed 100 ppm over a one hour rolling average.

7A.3.9.2 The Permittee shall be limited to the maximum waste feed rate, for each munition item, which will demonstrate compliance with the feed rate limitations listed in Table P-1 (MACT Operating Parameter Limits) and Section Q of the RCRA Permit Application.

7A.4 INSPECTION SCHEDULES AND PROCEDURES

7A.4.1 The metal residues from the discharge of the incinerator shall be separated and inspected before these items are removed from Building 117-3. This inspection shall be performed within the next 24-hour operating period following incineration of the waste munitions. Any un-detonated munition shall be recycled back into the incinerator. The metal casings shall be transferred to the Property Reutilization Office for recycling/sale.

7A.4.2 The Permittee shall inspect Building 117-3 munitions management areas in accordance with 40 CFR 262 Subpart C, 40 CFR 264 Subparts B and C, NAC 444.8677, and Permit Conditions 7A.3.1 through 7A.3.10, including an accurate inventory of the hazardous waste munition items stored in the rail car and the hazardous waste munition items staged in accordance with Permit Conditions 7A.3.4 through 7A.3.7. These records must be available for inspection at Building 117-3.

7A.4.3 The Permittee shall inspect the incineration unit in accordance with the Inspection Checklist and Schedule in Tables C-6 (Inspection Checklist for RF-9 Operations) and C-7 (Operational Inspection Schedule) of the Permit Application.

7A.4.4 The Permittee shall inspect the RF-9 Incinerator, its ancillary equipment, and the surrounding area daily for condition, proper equipment operation, and housekeeping.

7A.4.5 The Permittee shall perform maintenance and testing on the incinerator in accordance with Sections P and C of the Permit Application.

7A.4.6 The Permittee shall document compliance with Permit Conditions 7A.4.1 through 7A.4.5 and maintain copies of this documentation in the operating record at the facility.

[40 CFR 264.73 and 264.347(d)]

7A.5 RECORDKEEPING

7A.5.1 The Permittee shall record and maintain for a minimum of five (5) years, in the operating record for this permit, all monitoring, maintenance, inspection, calibration and testing data compiled under the requirements of this Permit. *[40 CFR 264.73 and 264.347(d)]*

7A.5.2 The Permittee shall maintain copies of all written requests to the Director and the Director's approvals of uncharacterized waste feed characterization and proposed feed rates developed under Permit Condition 7A.2.2.

7A.5.3 The Permittee shall maintain records of inspections performed as outlined in Permit Conditions 7A.4.1 through 7A.4.6.

7A.6 CLOSURE AND POST-CLOSURE CARE

7A.6.1 At closure of the RF-9 Incinerator system, the Permittee shall follow the procedures in Section R (Closure Plan for RF-9) of the Permit Application, and the conditions below.

7A.6.1.1 Prior to commencement of closure of the RF-9 Incinerator, the Permittee shall burn out residual organic contamination in the incineration system by operating the RF-9 Incinerator for a period of 16 hours, maintaining a minimum temperature of 600 degrees Fahrenheit in the rotary kiln and 1400 degrees Fahrenheit in the afterburner, utilizing only auxiliary fuel as the heat source.

7A.6.1.2 All sections of the incineration system, besides the combustion chambers, that have come in contact with hazardous waste must be triple rinsed with an appropriate solvent. Samples of the third rinse should be analyzed in accordance with the approved sampling plan, and rinses should continue until rinsate analyses are non-hazardous or the equipment should be disposed of as hazardous waste.

7A.6.1.3 At least one (1) year prior to commencement of closure of the RF-9 Incinerator, the Permittee shall prepare a detailed work plan for completing the required sampling and analysis plan for closure.

7A.7 COMPLIANCE SCHEDULE

The Permittee shall perform the following task(s) by the listed due date(s):

	Task	Date Due
1	*Reserved*	

7B. SUMMARY

The Hawthorne Army Depot (HWAD) Main Base facility includes three previously permitted incinerators. One of the incinerators is the Plasma Ordnance Demilitarization System (PODS) Incinerator. This unit is located in the HWAD Western Area Demilitarization Facility (WADF). The PODS Incinerator can treat pyrotechnic ordnance, and other ordnance considered to be ignitable (D001), reactive (D003) or toxic (D004, D005, D007-D009, D0030) characteristic hazardous waste, as defined in 40 CFR 261.23 and 261.24, respectively.

The authorities for specific requirements of this section of the Permit are pursuant to 40 CFR 264.340 except as otherwise provide by 264.340(b). Additional requirements pursuant to 40 CFR 270.32(b)(2), as described by the Division for further protective measures for both human health and environment, may also be imposed. To date, the PODS incinerator has only operated sporadically to complete trial runs before placement into temporary closure pending future budget provisions. Prior to unit reactivation, a cumulative Human Health and Ecological Risk Assessment (HHERA) must be completed to evaluate the combined emissions from all operational incinerators at the facility.

7B.1 INCINERATOR UNIT DESCRIPTION

The PODS unit is located in Building 117-2 in the eastern half of WADF. The system consists of a plasma furnace with air pollution control equipment and a water treatment system. The plasma furnace consists of computerized controls, a primary processing chamber, a slag collection chamber, two plasma arc torches, and a feed system. The plasma torches supply thermal energy to melt inorganic materials and combust organic materials through high temperature oxidation. In addition to the above, the system is equipped with a secondary combustion chamber, quench/absorber, scrubber, baghouse, nitrogen oxide (NO_x) control, Continuous Emission Monitoring System (CEMS), and an exhaust stack.

The air pollution control equipment consists of organic, volatile metal, acid gas, particulate, and oxides of nitrogen destruction/removal process steps. The water treatment system provides removal of both suspended and dissolved metals.

Key operating conditions and performance standards for the PODS incinerator will also be covered under 40 CFR 63.1200 (Part 63, Subpart EEE) as established by a Title V Air Quality Permit, issued by NDEP's Bureau of Air Pollution Control (BAPC). See Air Quality Operating Permit No. AP9711-0863.04 for reference.

Key operating conditions and performance standards for the PODS water treatment system and evaporation pond are covered under and established by a Water Pollution Control (WPC) Permit, issued by NDEP's Bureau of Water Pollution Control (BWPC). The WPC Permit requires groundwater monitoring at Building 117-2 by analyzing samples from nearby monitoring wells identified as PODS MW-1 and MW-2. See WPC Permit No. NEV2003516 for reference.

The PODS unit has only operated on an experimental basis. It has been subject to periods of inactivity while waiting for funding. The Permittee previously implemented the Temporary Closure Plan, as described in Section U of the Permit Application, due to the unit inactivity.

7B.2 PERMITTED AND PROHIBITED WASTE IDENTIFICATION AND PERMITTED CAPACITY – TREATMENT

7B.2.1 The Permittee may only treat, in PODS, the characterized hazardous wastes identified in Table T-2 in Section T of the Permit Application, and additional munition waste as approved by the Division under Permit Condition 7B.2.2.

7B.2.2 The Permittee may not treat the uncharacterized munition waste items listed in Table T-2 in Section T of the Permit Application, with an "NYC" in the "Gross Feed Rate" column, until these items are adequately characterized for incineration. Munition wastes must be characterized following the procedures described on the PODS Comprehensive Performance Test (CPT) in Appendix E of the Permit Application. In addition, the characterization information proposed feed rates must be submitted to the Director at least 90 days in advance of treatment.

7B.2.3 Based on the initial unit operating specifications, the Permittee shall limit the total quantity of Net Explosive Weight (NEW) in waste munitions to be treated in PODS to 6240 tons per calendar year. The limit may change and/or more limits may be imposed upon completion of the Comprehensive Performance Test (CPT) and the Cumulative Human Health and Ecological Risk Assessment (HHERA).

7B.3 INSTRUMENTATION AND OPERATIONAL PERFORMANCE REQUIREMENTS

The conditions of this section pertain to the management of hazardous waste munitions in the following areas of Building 117-2: the rail car storage area and the staging and loading area adjacent to the Waste Feed Monitoring System. In the Building 117-2 hazardous waste munitions management areas, the Permittee is only allowed to manage those hazardous waste munitions that are intended for treatment at the PODS Incinerator.

7B.3.1 The Permittee shall maintain the incinerator in accordance with the design plans and specifications contained in Sections S (Process Information for PODS), T (Waste Feed Characteristics for PODS) and C (Procedures to Prevent Hazards at RCRA Units on Main Base, Old Bomb, RF-9, PODS, and BEDS) of the Permit Application.

7B.3.2 The Permittee shall test all instrumentation in accordance with the design plans, performance specifications, and maintenance procedures contained in Sections S, T and C of the Permit Application.

7B.3.3 The Permittee shall maintain the incinerator so that, when operated in accordance with the operating requirements specified in this permit, it will be in compliance with the Maximum Achievable Control Technology (MACT) requirements of 40 CFR Part 63, Subpart EEE.

[40 CFR 264.340(b)(1), 270.19(e)]

7B.3.4 The Permittee is allowed to store one (1) rail car of hazardous waste munitions at the rail spur near the loading dock area near the northeast corner of Building 117-2.

7B.3.5 The Permittee must keep the rail car locked when waste is not being removed from or added to the rail car.

7B.3.6 The Permittee must label the rail car in accordance with the requirements of 40 CFR 262 Subpart C and NAC 444.8671.

7B.3.7 The quantity of hazardous waste munitions staged by the Permittee in the staging area of Building 117-2 shall not exceed the amount to be fed during 24 hours of incinerator operation. This amount is to be determined by the feed rates calculated in accordance with the MACT or any RCRA risk-based feed limits, as described in Sections S and T of the Permit Application.

7B.3.8 At a minimum, the Permittee shall maintain at least three (3) feet of aisle space between hazardous waste storage container rows in the staging area to facilitate inspections and movement of equipment and personnel. The Permittee shall not stack hazardous waste munitions in the staging area higher than eight (8) feet.

7B.3.9 The Permittee shall maintain adequate open floor space within Building 117-2 to allow for unencumbered forklift entrance and egress to the staging area.

7B.3.10 The Permittee shall perform the packing and loading of munitions onto the waste feed monitoring system in a manner that minimizes spilling or dispersion of hazardous waste munitions within Building 117-2.

7B.3.11 On the same day that containers of incinerator ash, sludge, slag, particles, and any other waste generated and collected from PODS are determined to be full and removed from collection service, the Permittee must remove the full storage containers from the Building 117-2 area and store them in a permitted storage building in accordance with Section 3 of this Permit.

7B.3.12 Except during periods specified in the Permit Conditions for Short-Term Incineration under the Shakedown Period, Trial Burn Period, and Post-Trial Burn Period, the Permittee shall feed the wastes described in Permit Condition 7B.2 to the incinerator only under the following conditions: *[40CFR 264.340 and 40CFR 264.345]*

7B.3.12.1 Carbon monoxide concentration in the stack exhaust gas, monitored as specified on page S-10 of the Permit Application and corrected for the amount of oxygen in the stack gas, shall not exceed 100 ppm over a one hour rolling average.

7B.3.12.2 The Permittee shall be limited to the maximum waste feed rate, for each munition item, which will demonstrate compliance with all of the feed rate limitations listed in Table T-2 (PODS Waste Feed List Characterized Feed Items) and Section T of the RCRA Permit Application.

7B.4 INSPECTION SCHEDULES AND PROCEDURES

7B.4.1 Any ash, sludge, slag and particle residues from the discharge of the incinerator shall be separated and inspected before these items are removed from the paved area of Building 117-2. This inspection shall be performed within the next 24-hour operating period following incineration of the hazardous waste. Unless shown to be non-hazardous, the ash, sludge, slag

and particle residues shall be placed in containers and managed as hazardous waste. Any un-detonated munition shall be recycled back into the incinerator.

7B.4.2 The Permittee shall inspect Building 117-2 munitions management areas in accordance with 40 CFR 262 Subpart C, 40 CFR 264 Subparts B and C, NAC 444.8677, and Permit Conditions 7B.3.1 through 7B.3.13, including an accurate inventory of the hazardous waste munition items stored in the rail car and the hazardous waste munition items staged in accordance with Permit Conditions 7B.3.7 through 7B.3.10. Records for inspections of Building 117-2 must be maintained and available for at least five (5) years.

7B.4.3 The Permittee shall inspect the incineration unit in accordance with the Inspection Schedules and Log Sheet in Tables C-8 (Inspection Schedule – Safety/Emergency/Security Equipment), C-9 (Security/Emergency/Security Equipment Inspection Log Sheet) and C-10 (PODS Maintenance Schedule) of the Permit Application.

7B.4.4 The Permittee shall inspect the PODS Incinerator, its ancillary equipment, and the surrounding area daily for condition, proper equipment operation, and housekeeping.

7B.4.5 The Permittee shall perform maintenance and testing on the incinerator in accordance with Sections S and T of the Permit Application.

7B.4.6 The Permittee shall document compliance of the PODS Unit/Building 117-2 with Permit Conditions 7B.4.1 through 7B.4.5 and maintain copies of this documentation for at least five (5) years. *[40CFR 264.73 and 264.347]*

7B.5 RECORDKEEPING

7B.5.1 The Permittee shall record and maintain, in the operating record for this permit for at least five (5) years, all monitoring, maintenance, inspection, calibration and testing data compiled under the requirements of this Permit. *[40CFR 264.73 and 264.347]*

7B.5.2 The Permittee shall maintain copies of all written requests to the Director and the Director's approvals of uncharacterized waste feed characterization and proposed feed rates developed under Permit Condition 7B.2.2.

7B.5.3 The Permittee shall maintain records of inspections performed as outlined in Permit Conditions 7B.4.1 through 7B.4.6.

7B.6 UNIT CLOSURE

7B.6.1 Upon prolonged shutdown of the PODS unit, the Permittee shall provide notification of the temporary closure to the Division and follow the procedures in Section U (Closure Plan for PODS) of the Permit Application.

7B.6.2 At final closure of the PODS incinerator, the Permittee shall follow the procedures in Section U (Closure Plan for PODS) of the Permit Application, and the conditions below.

7B.6.2.1 At least one (1) year prior to commencement of final closure of the PODS Incinerator, the Permittee shall prepare a detailed sampling and analysis plan for closure and submit it to the Director for approval.

7B.7 COMPLIANCE SCHEDULE

The Permittee shall perform the following task(s) by the listed due date(s):

	Task	Date Due
1	In the event that PODS is proposed to operate again, the Permittee shall **Submit** an application for renewal of the Variance to NAC 444.8456; and must **Obtain** approval from the State Environmental Commission for the Certificate of Designation variance.	At least 180 days prior to the proposed date of recommencing operation at PODS.
2	In event that it is determined to re-activate the PODS Unit, the Permittee shall submit a Class 1* RCRA Permit modification to change the operating status of the unit and to include the elements listed below.	At least 180 days prior to BEDS being used to treat hazardous waste.
3	**Add** a PODS Maintenance Schedule which includes the AWFCO Systems; Modify Table A-1 to describe PODS as "active" and/or in "testing phase"; and **Submit** the revised tables to the Director.	
4	**Prepare** and **Submit** a Director-approved CPT and a combined HHERA for the inclusion of PODS. Agency **approval** of the submitted HHERA Report must be granted prior to any hazardous waste treatment at PODS.	At least 180 days prior to the treatment of any hazardous waste at PODS
5	*Reserved*	

7C. SUMMARY

The Hawthorne Army Depot (HWAD) Main Base facility includes three previously permitted incinerators. One of the incinerators is the Bulk Energetics Demilitarization System (BEDS) incinerator. This unit is located in the HWAD Western Area Demilitarization Facility (WADF). The BEDS Incinerator system can treat a variety of obsolete and unusable bulk propellants, most of which are considered hazardous waste due to their reactive (D003) components as defined in 40 CFR 261.23. Some propellant materials may also be hazardous waste due to lead toxicity (D008).

The authorities for specific requirements of this section of the Permit are pursuant to 40 CFR 264.340, except as otherwise provided by 264.340(b). The BEDS incinerator unit is also subject to Maximum Achievable Control Technology (MACT) air permitting requirements. Additional requirements pursuant to 40 CFR 270.32(b)(2), as described by the Division for further protective measures for both human health and environment, may also be imposed. To date, the BEDS incinerator has not operated, and the unit resides in temporary closure. Prior to unit activation, a cumulative Human Health and Ecological Risk Assessment (HHERA) must be completed to evaluate the combined emissions from all operational incinerators at the facility.

7C.1 INCINERATOR UNIT DESCRIPTION

The BEDS unit is located at Building 117-4 in the eastern half of WADF. The incinerator system consists of a feed system (container handling and slurry preparation), a rotary kiln, a combustion chamber coupled with a slurry-feed system and Pollution Abatement System (PAS), and a process control computer. The container handling includes a dump hopper and conveyor belt. The slurry preparation includes a wet grinder, a slurry tank, a spray-water tank, and a feed tank. The combustion chamber, located downstream from the rotary kiln, is a refractory lined chamber, equipped with two burners, to ensure that all of the combustibles are burned, and the hydrocarbon emissions are reduced to acceptable levels.

The PAS consists of an evaporative cooler, a hydrated lime hopper/injector, a baghouse, an induced draft fan, a continuous emissions monitoring system (CEMS), and an exhaust stack.

A process control computer is used to control and monitor various process parameters in BEDS. The control system automatically addresses all conditions that potentially endanger personnel, equipment, or emissions compliance.

Key operating conditions and performance standards for the BEDS incinerator are also covered under 40 CFR 63.1200 (Part 63, Subpart EEE) as established by a Title V Air Quality Permit, issued by NDEP's Bureau of Air Pollution Control (BAPC). See Air Quality Operating Permit No. AP9711-0863 for reference.

After construction of the BEDS unit, funding was not available to begin testing. Thus, the BEDS unit has not operated and has been placed in temporary closure.

7C.2 PERMITTED AND PROHIBITED WASTE IDENTIFICATION AND PERMITTED CAPACITY – TREATMENT

7C.2.1 The Permittee may only treat, in BEDS, the hazardous waste energetics identified in Table V-1 (Representative List of Energetics to be Processed at BEDS) in Section V (Process Information for BEDS) of the Permit Application, and additional munition waste as approved by the Division under Permit Condition 7C.2.2.

7C.2.2 The Permittee may not treat munition waste items not listed in Table V-1 in Section V of the Permit Application until these items are adequately characterized for incineration, following completion of a Comprehensive Performance Test (CPT) for BEDS, as described in Appendix U of the Permit Application, and the characterization information and proposed feed rates are submitted to the Director as a permit modification.

7C.2.3 Based upon the initial unit operating specifications, the Permittee shall limit the total quantity of Net Explosive Weight (NEW) in waste munition to be treated in BEDS to 858 tons per calendar year. The limit may change and/or more limits may be imposed upon completion of the Comprehensive Performance Test and the Cumulative Human Health and Ecological Risk Assessment (HHERA).

7C.3 INSTRUMENTATION AND OPERATIONAL PERFORMANCE REQUIREMENTS

The conditions of this section pertain to the management of hazardous waste munitions in the loading/unloading area of Building 117-4. In the Building 117-4 work corridor, the Permittee is only allowed to manage hazardous energetic waste that is intended for treatment at the BEDS incinerator.

7C.3.1 The Permittee shall maintain the incinerator in accordance with the design plans and specifications contained in Sections V (Process Information for BEDS), W (Waste Feed Characteristics for BEDS), and C (Procedures to Prevent Hazards at RCRA Units on Main Base, Old Bomb, RF-9, PODS, and BEDS) of the Permit Application.

7C.3.2 The Permittee shall test all instrumentation in accordance with the design plans, performance specifications, and maintenance procedures contained in Sections V, W and C of the Permit Application.

7C.3.3 The Permittee shall operate and maintain the incinerator in accordance with the operating requirements specified in this Permit and in compliance with the Maximum Achievable Control Technology (MACT) requirements of 40 CFR Part 63, Subpart EEE.

[40 CFR 264.340(b)(1), 270.19(e)]

7C.3.4 The Permittee shall transport hazardous waste munitions to Building 117-4 on a truck, in a secure fashion.

7C.3.5 The Permittee shall not store any transportation vehicles carrying hazardous energetic waste at Building 117-4.

7C.3.6 The quantity of hazardous energetic waste kept at Building 117-4 shall not exceed the amount to be fed during the 24 hours of incinerator operation, as determined by the feed rates calculated in accordance with the MACT or any RCRA risk based feed limits, as described in Sections V and W of the Permit Application.

7C.3.7 At a minimum, the Permittee shall maintain at least three (3) feet of aisle space between hazardous waste container rows in the loading/unloading area to facilitate inspections and movement of equipment and personnel.

7C.3.8 The Permittee shall maintain adequate open floor space within Building 117-4 to allow for unencumbered forklift entrance and egress to the feed system.

7C.3.9 The Permittee shall perform the packing and loading of energetics onto the Feed System in a manner that minimizes spilling or dispersion of hazardous energetic waste within Building 117-4.

7C.3.10 On the same day containers of incinerator ash, calcium salts, unreacted lime, and any other waste collected from BEDS are determined to be full and removed from the collection service, the Permittee must remove the full storage containers from the Building 117-4 area and store them in a permitted storage building in accordance with Section 3 of this Permit.

7C.3.11 The incinerator shall not emit particulate matter in excess of 180 milligrams per dry standard cubic meter (0.08 grains per dry standard cubic foot) when corrected for the amount of oxygen in the stack gas, in accordance with the formula specified in 40 CFR 264.343(c).

[40CFR 264.340 and 40CFR 264.343]

7C.3.12 Except during periods specified in the Permit Conditions for Short-Term Incineration under the Shakedown Period, Trial Burn Period, and Post-Trial Burn Period, the Permittee shall feed the wastes described in Permit Condition 7C.2 to the incinerator only under the following conditions:

[40CFR 264.340 and 40CFR 264.345]

7C.3.12.1 Carbon monoxide concentration in the stack exhaust gas, monitored as described in Section V of the Permit Application, and corrected for the amount of oxygen in the stack gas, shall not exceed 100 ppm over a one hour rolling average.

7C.3.12.2 The Permittee shall be limited to the maximum waste feed rate, for each munition item, which will demonstrate compliance with all of the feed rate limitations described in Section V of the RCRA Permit Application.

7C.4 INSPECTION SCHEDULES AND PROCEDURES

7C.4.1 Any ash, calcium salt, unreacted lime and other residues from the discharge of the incinerator shall be separated and inspected before these items are removed from the paved area of Building 117-4. This inspection shall be performed within the next 24-hour period. Ash residues shall be placed in a container and managed as a hazardous waste. Any un-treated propellant shall be recycled back into the incinerator.

7C.4.2 The Permittee shall inspect Building 117-4 munitions management areas in accordance with 40 CFR 262 Subpart C, 40 CFR 264 Subparts B and C, NAC 444.8677, and Permit Conditions 7C.3.1 through 7C.3.12, including an accurate inventory of the hazardous waste munition items staged in accordance with Permit Conditions 7C.3.6 through 7C.3.9. Records for inspection of Building 117-4 must be maintained and available for at least five (5) years.

7C.4.3 The Permittee shall inspect the incineration unit in accordance with the Inspection Schedules and Log Sheet in Tables C-8 (Inspection Schedule – Safety/Emergency/Security Equipment), C-9 (Safety/Emergency/Security Equipment Inspection Log Sheet) and C-11 (BEDS Inspection and Maintenance Schedule) of the Permit Application.

7C.4.4 The Permittee shall inspect the Incinerator, its ancillary equipment, and the surrounding area daily for condition, proper equipment operation, and housekeeping.

7C.4.5 The Permittee shall perform maintenance and testing on the Incinerator in accordance with Sections V and U of the Permit Application.

7C.4.6 The Permittee shall document compliance for Building 117-4 with Permit Conditions 7C.4.1 through 7C.4.5 and maintain copies for at least five (5) years. *[40 CFR 264.73 and 264.347(d)]*

7C.5 RECORDKEEPING

7C.5.1 The Permittee shall record and maintain, in the operating record for this permit for at least five (5) years, all monitoring, maintenance, inspection, calibration and testing data compiled under the requirements of this Permit. *[40 CFR 264.73 and 264.347(d)]*

7C.5.2 The Permittee shall maintain copies of all written requests to the Director and the Director's approvals of uncharacterized waste feed characterization and proposed feed rates developed under Permit Condition 7C.2.2.

7C.5.3 The Permittee shall maintain records of inspections performed as outlined in Permit Conditions 7C.4.1 through 7C.4.6.

7C.6 CLOSURE CARE

7C.6.1 Upon prolonged shutdown of the BEDS unit, the Permittee shall provide notification to the Division and follow the temporary closure procedures in Section X (Closure Plan of BEDS) of the Permit Application.

7C.6.2 At final closure of the BEDS incinerator, the Permittee shall follow the procedures in Section X (Closure Plan for BEDS) of the Permit Application, and the conditions below.

7C.6.2.1 At least one (1) year prior to commencement of final closure of the BEDS Incinerator, the Permittee shall prepare a detailed work plan for completing the required sampling and analysis plan for closure.

7C.7 COMPLIANCE SCHEDULE

The Permittee shall perform the following task(s) by the listed due date(s):

	Task	Date Due
1	In event that the BEDS Unit is determined to be activated, the Permittee shall **submit** a Class 1* RCRA Permit modification to change the operating status of the unit and to include the elements listed below.	At least 180 days prior to BEDS being used to treat hazardous waste.
2	**Expand** the secondary-containment sump to provide a capacity of at least 3,100 gallons, and make other secondary containment modifications as described in last paragraph in Permit Application Section V and **Submit** certification of construction documentation	Must be accepted by the Division prior to operation of BEDS.
3	**Obtain** a Professional Engineer's Tank Integrity Assessment for the tank system and **Submit** it to the Director.	Must be accepted by the Division prior to operation of BEDS.
4	**Add** a BEDS Inspection and Maintenance Schedule which includes the AWFCO Systems; **Modify** Table A-1 to describe BEDS as "active" and/or in "testing phase"; and **Submit** the revised tables to the Director.	
5	**Prepare** and Submit a Director-approved CPT and a combined HHERA for inclusion of BEDS. Agency **approval** of the HHERA Report must be granted prior to any hazardous waste treatment at BEDS.	At least 180 days prior to BEDS being used to treat hazardous waste.
6	*Reserved*	

8. SUMMARY

The US EPA's National Waste Minimization Program supports efforts that promote a more sustainable society, reduce the amount of waste generated, and lower the toxicity and persistence of wastes that are generated. The Permittee is required to conduct a Waste Minimization Program in accordance with this Section of the Permit and Appendix D (Hazardous Waste Minimization Plan) of the Permit Application.

8.1 WASTE MINIMIZATION RECORD

The Permittee shall maintain at the facility copies of waste minimization documents required in Permit Conditions 8.2 and 8.3 and shall make them available to any authorized representative of NDEP or USEPA conducting an inspection pursuant to 40 CFR 270.32(b).

8.2 WASTE MINIMIZATION CERTIFICATION

The Permittee shall annually certify in accordance with 40 CFR 264.73(b)(9):

1. The Permittee has a program in place to reduce the volume and toxicity of all hazardous wastes which are generated by the facility operations to the degree, determined by the Permittee, to be economically practicable; and,
2. The method of treatment, storage, or disposal is the only practicable method or combination of methods currently available to the facility, which minimizes the present and future threat to human health and the environment.
3. This certification shall be retained with the facility's operating record and shall comply with the signatory requirements of Permit Condition 1.5.13.
4. The Permittee shall send a copy of the annual certification to the NDEP-BSMM.

8.3 SOURCE REDUCTION PLANS AND REPORTS

8.3.1 Source Reduction Evaluation Review and Plan

At each permit renewal, the Permittee shall submit a source reduction evaluation review and plan to the Director. The review and plan should be conducted and prepared in accordance with the procedures and format provided in the EPA Waste Minimization Opportunity Assessment Manual or other equivalent source reduction guidance. Additional industry specific source reduction guidance is available from both the EPA and the State. The review and plan shall include, at a minimum, the following: *[40 CFR 270.32(b)]*

1. The name and location of the facility.
2. The NAIC/SIC Code of the facility.
3. A copy of any written company policy or statement that outlines the general goals, objectives, and methods of source reduction to be implemented within the next five years.
4. Identification of all routinely generated hazardous waste streams, which result from ongoing processes or operations. For the purposes of this paragraph, a hazardous waste stream is to be included if it meets the following criteria:

   (a) It is a hazardous waste stream processed in a wastewater treatment unit which

discharges to a publicly owned treatment works or under a national pollutant discharge elimination system (NPDES) permit and its weight before treatment exceeds five (5) percent of the weight of the total yearly volume of hazardous waste generated at the site; or

(b) It is a hazardous waste stream which is not processed in a wastewater treatment unit and its weight exceeds five (5) percent of the weight of the total yearly volume of hazardous waste generated at the site, less the weight of any hazardous waste stream identified in Permit Condition 8.3.1.4(a).

5. For each hazardous waste stream identified in Permit Condition 8.3.1.4, the following information shall be included:
   (a) An estimate of the quantity of hazardous waste generated; and
   (b) An evaluation of source reduction approaches available to the Permittee, which are potentially viable. The evaluation shall consider, at a minimum, the following source reduction approaches:
      (1) Input change;
      (2) Operational improvement;
      (3) Production process change; and
      (4) Product reformulation.
6. Any source reduction and/or recycling measure implemented by the Permittee in the last five (5) years.
7. A specification of, and a rationale for, the technically feasible and economically practicable source reduction measures which will be taken by the Permittee with respect to each waste stream identified. The review and plan shall fully document any statement explaining the Permittee's rationale for rejecting any available source reduction approach identified in Permit Condition 8.3.1.5.[i]
8. A detailed description of any programs the Permittee may have to assist generators of hazardous waste in reducing the volume or quantity and toxicity of waste they produce.
9. An evaluation, and, to the extent practicable, a quantification, of the effects of the chosen source reduction method on emissions and discharges to the air, water, or land environmental mediums.
10. A description of employee training programs and employee incentive programs for source reduction, which may be in effect at the facility.
11. A timetable for making reasonable and measurable progress towards implementation of the selected source reduction measures identified in Permit Condition 8.3.1.7.
12. A summary of the source reduction evaluation review and plan.
13. Certification of the review and plan, and the summary by a qualified Professional Engineer, or by an individual who is responsible for the processes and operation of the facility, or by an environmental assessor, who has demonstrated expertise in hazardous waste management. The engineer, individual, or assessor shall certify the review, the plan and the summary only if the review, the plan and the summary meet all the requirements of Permit Condition 8.3.1.

[i] **Note:** NDEP does not consider a source reduction method to be valid if it merely switches the waste load from one environmental medium (air, water, or land) to another.

8.3.2 Certification of Plan Implementation

At the time the review and plan required by Permit Condition 8.3.1 is submitted to the Director, the Permittee shall also submit a written statement from a responsible official of the facility certifying that the Permittee has implemented, is implementing, or will be implementing, the source reduction measures identified in the plan according to the implementation schedule contained in the source reduction plan.

8.3.2.1 The Permittee may determine not to implement a measure selected pursuant to Permit Condition 8.3.1.7 only if the Permittee determines, upon conducting further analysis or due to unexpected circumstances, that the selected measure is not technically feasible or economically practicable, or if attempts to implement that measure reveal that the measure would result in, or has resulted in, any of the following: *[40 CFR 264.73(b)(9)]*

1. An increase in the generation of waste (hazardous and solid).
2. An increase in the release of hazardous chemicals to other environmental media.
3. Adverse impacts on product quality.
4. A significant increase in the risk of an adverse impact to human health or the environment.

8.3.3 Source Reduction Plan and Plan Summary Amendments

If the Permittee elects not to implement the measures selected pursuant to Permit Condition 8.3.1.7, the Permittee shall amend its review and plan, and its summary to reflect this rejection and include in the review and plan, and in the summary, proper documentation identifying the rationale for this rejection. Any amendments to the review and plan or the plan summary shall be submitted to the Director no later than thirty (30) days prior to implementation of the changes.

[40 CFR 270.32(b)]

8.3.4 Hazardous Waste Management Performance Report

Within one (1) year of the effective date of this permit and every year thereafter, the Permittee shall prepare a hazardous waste management performance report documenting hazardous waste management approaches implemented at the facility. The report shall be prepared in accordance with the EPA Waste Minimization Opportunity Assessment Manual or other equivalent source reduction guidance. The report shall include at a minimum the following: *[40 CFR 270.32(b)]*

1. The name and location of the facility
2. The SIC Code for the facility
3. The following information for each waste stream identified pursuant to Permit Condition 8.3.1.4:
    i. An estimate of the quantity of hazardous waste generated and the quantity of hazardous waste managed by the Permittee during the current reporting year and the baseline year. The current reporting year is the calendar year immediately preceding the year in which the report is to be prepared. For the initial report, the baseline year is any calendar year selected by the Permittee for which substantial data is available on waste generation, or on-site or off-site management. Alternatively, the Permittee may select the current

reporting year as the initial baseline year. For all subsequent reports, the baseline year is the current reporting year of the immediately preceding report.

ii. An assessment of the effect, during the current year, of each hazardous waste management measure implemented since the baseline year, upon the generation and the on-site and off-site management of hazardous waste. For the initial report, the assessment of the effect required by this condition shall be made for the current year in general terms for any waste management measures implemented in the preceding five years. The report shall consider, but shall not be limited to, measures which use the following approaches:
   a. Source reduction
   b. Recycling
   c. Treatment

iii. A description of factors during the current reporting year that have affected hazardous waste generation and on-site and off-site hazardous waste management since the baseline year. For the initial report, the description of factors shall be made in general terms for those factors affecting generation and management in the preceding five years. The description shall include, but is not limited to, any of the following:
   a. Changes in business activity
   b. Changes in waste classification
   c. Natural phenomena
   d. Other factors that have affected either the quantity of hazardous waste generated or on-site and off-site hazardous waste management requirements

iv. A description of any factors, which may have prevented implementation of any aspect of the source reduction plan.

4. A summary of the hazardous waste management performance report.
5. Certification of the report and summary by an individual who is responsible for the processes and operations of the facility who has demonstrated expertise in hazardous waste management. The individual shall certify the report and summary only if the report and summary meet all the requirements of Permit Condition 8.3.4.

8.4 SPECIFIC WASTE MINIMIZATION CONDITIONS

The Permittee shall at all times properly operate and maintain munition recycling facilities at the Western Area Demilitarization Facility (WADF). Proper operation and maintenance includes effective performance, adequate funding, and adequate operator staffing and training.

8.5 COMPLIANCE SCHEDULE

The Permittee shall perform the following task(s) by the listed due date(s):

	Task	Date Due
1	*Reserved*	

9. SUMMARY

The Permittee is required to manage hazardous waste in accordance with the air emission standards of Subparts AA, BB and CC of 40 CFR 264, as applicable. Containers (Permit Section 3) of hazardous waste with volatile organic compound (VOC) concentrations over five hundred (500) ppmw and equipment that contains or contacts hazardous waste with ≥ ten (10) percent organics are subject to these requirements. At the time this permit was issued, no Hazardous Waste Management Unit (HWMU) subject to 40 CFR 264 Subpart AA, nor tank or Subpart X Unit subject to 40 CFR 264 Subpart BB or CC are permitted at the facility. However, onsite generated wastes may include waste paints and solvents with VOC concentrations in excess of 500 ppm; and as such, are subject to 40 CFR 264 Subpart CC requirements for containers.

9.1 ORGANIC AIR EMISSION STANDARDS

9.1.1 Prior to constructing any Hazardous Waste Management Unit (HWMU) with process vents subject to the requirements of 40 CFR 264, Subpart AA or installing any additional equipment subject to the requirements of 40 CFR 264, Subpart BB, the Permittee shall apply for a permit modification, as described in Permit Condition 1.2.1, and provide the specific Part B information required under 40 CFR 270.14-17, 270.24 and 270.25, as applicable, with the modification request.

9.1.2 Prior to installing any tank, surface impoundment or miscellaneous unit subject to 40 CFR Part 264, Subpart CC, the Permittee shall apply for a permit modification, as described in Permit Condition 1.2.1, and provide the specific Part B information required under 40 CFR 270.14-17 and 270.27, as applicable, with the modification request.

9.1.3 The Permittee shall also maintain compliance with the Air Quality Operating Permit #AP9711-0863 (and any revisions and renewals) issued to Hawthorne Army Depot by the NDEP Bureau of Air Pollution Control.

9.2 APPLICABILITY

40 CFR 264 Subpart BB establishes air emission controls for equipment leaks. Subpart BB applies to HWMU's that contain or contact hazardous wastes with organic concentrations of at least ten (10) percent by weight for at least three hundred (300) hours per calendar year. 40 CFR 264 Subpart CC establishes air emission controls for containers, tanks, surface impoundments, or miscellaneous units subject to 40 CFR 264 Subparts I, J, K, or X. Generally, if a hazardous waste has an average VOC concentration less than five hundred (500) parts per million by weight (ppmw) at the point of waste origination, the unit is exempt from the Subpart CC regulations. The containers stored in the areas identified in Table 9.2 below are subject to Subpart CC regulations:

Table 9.2

#	Waste Management Area	Requirements
1	Building 106-22	Subpart CC ~ Containers
2	Building 106-23	Subpart CC ~ Containers
3	Building 115-9	Subpart CC ~ Containers
4	Building 113-73A	Subpart CC ~ Containers
5	*Reserved*	*Reserved*

9.2.1 The Permittee shall use the procedures specified in 40 CFR 264.1063(d) to determine if equipment is subject to the Subpart BB air emission standards.

9.2.2 The Permittee shall use the procedures specified in 40 CFR 264.1080, 264.1082 or documentation submitted by the Generator of the waste to determine if a waste stream requires Subpart CC air emission controls.

1. When using Generator supplied information the determination shall be made in accordance with 40 CFR 264.1083.
2. If an exemption is based on 40 CFR 264.1082(c)(1), then the VOC concentration of the hazardous waste streams shall be reviewed at least once every twelve (12) months.

9.3 OPERATING REQUIREMENTS

9.3.1 The Permittee shall control air pollutant emissions from each container subject to this Permit Section, in accordance with the following requirements, as applicable to the container.

[40 CFR 264.1086(b)(1)]

9.3.1.1 For a container having a design capacity greater than twenty-six (26) gallons and less than one hundred and nineteen (119) gallons, the Permittee shall control air pollutant emissions from the container in accordance with the Container Level 1 standards specified in Permit Condition 9.3.2, below.

9.3.1.2 For a container having a design capacity greater than one hundred and nineteen (119) gallons that is not in light material service, the Permittee shall control air pollutant emissions from the container in accordance with the Container Level 1 standards specified in Permit Condition 9.3.2, below.

9.3.2 A container using Container Level 1 standards is one of the following:

[40 CFR 264.1086(c)(1)]

9.3.2.1 A container that meets the applicable U.S. Department of Transportation (DOT) regulations on packaging, hazardous materials for transportation, as specified in 49 CFR Part 178-Specifications for Packaging or 49 CFR Part 179-Specifications for Tank Cars and 40 CFR Part 107, subpart B-Exemptions; 49 CFR Part 172-Hazardous Materials Table, Special Provisions, Hazardous Materials Communications, Emergency Response Information, and Training Requirements; 49 CFR Part 173-Shippers-General Requirements for Shipments and Packages; and 49 CFR Part 180-Continuing Qualification and Maintenance of Packaging.

9.3.2.1.1 For the purpose of complying with this Part, no exceptions to the 49 CFR Part 178 or 179 regulations are allowed except as provided in Permit Condition 9.3.2.1.2.

9.3.2.1.2 For a lab pack that is managed in accordance with the requirements of 49 CFR Part 178, for the purpose of complying with this Part, the Permittee may comply with the exceptions for combination packaging specified in 49 CFR Part 173.12(b).

9.3.2.2 A container equipped with cover and closure devices that form a continuous barrier over the container openings, such that when the cover and closure devices are secured in the closed position there are no visible holes, gaps, or other open spaces into the interior of the container. The cover may be a separate cover installed on the container (e.g., a lid on a drum or a suitably secured tarp on a roll-off box) or may be an integral part of the container structural design (e.g., such as a "portable tank" or bulk cargo container equipped with a screw type cap).

9.3.2.3 An open-top container in which an organic-vapor suppressing barrier (e.g. organic-vapor suppressing foam) is placed on or over the hazardous waste in the container such that no hazardous waste is exposed to the atmosphere.

9.3.3 A container using Container Level 1 controls shall have a cover or closure device that is compatible with the waste and the intended management of the container.

9.3.4 Whenever storing a container using Container Level 1 controls, the Permittee shall install all covers and closure devices for the container, and secure and maintain each closure device in the closed position except as follows:

9.3.4.1 Opening of a closure device or cover is allowed for the purpose of adding hazardous waste or other material to the container as follows:

9.3.4.1.1 In the case when the container is filled to the intended final level in one continuous operation, the Permittee shall promptly secure the closure devices in the closed position and install the covers as applicable to the container, upon the conclusion of the filling operation.

9.3.4.1.2 In the case when discrete quantities or batches of material intermittently are added to the container over a period of time, the Permittee shall promptly secure the closure devices in the closed position and install covers as applicable to the container, upon:

1. The container being filled to the intended final level;
2. The completion of a batch loading after which no additional material will be added to the container within fifteen (15) minutes;
3. The person performing the loading operation leaving the immediate vicinity of the container; or
4. The shutdown of the process generating the material being added to the container, whichever condition occurs first.

9.3.4.2 Opening of a closure device or cover is allowed for the purpose of removing hazardous waste from the container as follows: *[40 CFR 264.1086(c)(3)(ii)]*

9.3.4.2.1 For the purposes of meeting the requirements of this Permit Condition, an empty container as defined in 40 CFR 261.7(b) may be open to the atmosphere at any time (i.e., covers and closure devices are not required to be secured in the closed position on an empty container).

9.3.4.2.2 In the case when discrete quantities or batches of material are removed from the container but the container does not meet the conditions to be an empty container as defined by 40 CFR 261.7(b), the Permittee shall promptly secure the closure devices in the closed position

and install covers as applicable to the container, upon the completion of a batch removal after which no additional material will be removed from the container within fifteen (15) minutes or the person performing the operation leaves the immediate vicinity of the container, whichever occurs first.

9.3.4.3 Opening of a closure device or cover is allowed when access inside the container is needed to perform routine activities (e.g., sampling) other than transfer of hazardous waste. Following completion of the activity, the Permittee shall promptly secure the closure device or reinstall the cover, as applicable to the container.

9.3.4.4 Opening of a spring-loaded pressure-vacuum relief valve, conservation vent, or similar type of pressure relief device which vents to the atmosphere is allowed during normal operations for maintaining the internal pressure of the container in accordance with the container design specifications. The device shall be designed to operate with no detectable organic emissions when the device is secured in the closed position. The settings at which the device opens shall be established such that the device remains in the closed position whenever internal pressure of the container is within the normal internal operating pressure for that container as defined in 40 CFR 264.1086(c)(3)(iv).

9.3.4.5 Opening of a safety device, as defined in 40 CFR 264.1081, is allowed at any time conditions require doing so to avoid an unsafe condition.

9.4 INSPECTION AND REPORTING REQUIREMENTS

9.4.1 The Permittee shall inspect containers using Container Level 1 controls and their covers as follows:

9.4.1.1 Containers accepted at the facility which are not empty per 40 CFR 261.7(b), shall be visually inspected within twenty-four (24) hours of acceptance. Each container and its cover shall be inspected for visible cracks, holes, gaps or other open spaces when the cover or closure device is secured in the closed position. If a defect is detected, the Permittee shall repair the defect in accordance with Permit Condition 9.4.1.2.

9.4.1.2 When a defect is detected for a container, cover or closure device, the Permittee shall make first efforts at repair of the defect no later than twenty-four (24) hours after detection and the repair shall be completed as soon as possible but no later than five (5) calendar days after the defect is detected. If a repair or defect cannot be completed within five (5) calendar days, then the hazardous waste shall be removed from the container and the container shall not be used to manage hazardous waste until the defect is repaired.

9.4.2 Visual inspections, monitoring, and all recordkeeping requirements shall be met for each unit to ensure compliance with 40 CFR 264.1088 and 264.1089.

9.4.3 The Permittee shall report to the Director within seven (7) days any unit that is not listed in Table 9.2 and is managing hazardous waste such that 40 CFR 264 Subpart AA, BB or CC should apply to that unit.

9.4.4 A monitoring and inspection schedule and procedures shall be submitted to the Director, within thirty (30) calendar days prior to the anticipated start-up of any new Subpart CC unit or emissions control technology on existing units. The inspection schedule and procedures shall be approved by the Director prior to any continuous or intermittent operations.

9.4.5 The Permittee shall determine if a Permit modification is required under 40 CFR 270.42 or Permit Condition 1.2.1 for any new activity requiring management under this Part and follow the procedures in 40 CFR 270 to obtain a Permit modification if required.

9.5 RECORDKEEPING REQUIREMENTS

9.5.1 The Permittee shall maintain in the operating record at the facility the following information:

9.5.1.1 A copy of the procedure used to determine that containers with a capacity of one hundred and nineteen (119) gallons or greater, which do not meet applicable DOT regulations as specified in 40 CFR 264.1086(f), are not managing hazardous waste in light service.

9.5.1.2 For waste streams that do not require the use of air emission control equipment, documentation shall be recorded and maintained in the operating record that includes the information that was used by the Permittee for each waste determination (e.g. test or certification by the generator). If analysis results for waste samples are used for the waste determination, then the Permittee shall record the date, time, and location that each waste sample is collected in accordance with applicable requirements in 40 CFR 264.1083.

9.5.1.3 For containers used at the facility to manage hazardous wastes covered by this Permit Section, sufficient information shall be provided to describe:

1. An identification number for the container or group of containers;
2. The purpose and placement of this container, or group of containers, in the management train of this hazardous waste; and
3. The procedures used to ultimately dispose of the hazardous waste handled in the containers.

9.6 AIR EMISSION CONTROL INFORMATION TO BE MAINTAINED AT THE FACILITY

9.6.1 As warranted, the Permittee shall maintain at the facility, until closure of the facility is completed and certified by a qualified Professional Engineer, the following air emission control documents, information and all amendments, revisions and modifications to these documents and information:

9.6.1.1 Identification of each area that manages waste subject to 40 CFR 264 Subpart AA, BB or CC controls and the Permittee's certification that the requirements of this Subpart are met. The facility must document if the containers are subject to Level 1, Level 2 or Level 3 requirements;

9.6.1.2 An emission monitoring plan for Method 21 in 40 CFR Part 60, Appendix A. This plan shall include monitoring point(s), monitoring methods for control devices, monitoring frequency, procedures for documenting any exceedance, and procedures for mitigating noncompliance.

9.7 COMPLIANCE SCHEDULE

The Permittee shall perform the following task(s) by the listed due date(s):

	Task	Date Due
1	*Reserved*	

NOTE: *As of the issuance of this Permit, all groundwater monitoring for the Hawthorne Army Depot is covered under the Water Pollution Control (WPC) Permit issued by NDEP's Bureau of Water Pollution Control (BWPC) or as provided by the base-wide monitoring plan which is reviewed by the Bureau of Corrective Action – DOD Branch. In lieu of groundwater monitoring, soil sampling is required in the specific area utilized for open burn treatment pursuant to Section 6 of this permit Additionally, the Old Bomb open burn treatment unit is located within an active range area which will be subject to further investigations and review upon site closure.*

Reserved for future use (Groundwater Detection Monitoring)

Reserved for future use (Groundwater Compliance Monitoring)

12A SUMMARY

This section of the Permit applies to hazardous waste "regulated units" at the facility. *This Section is currently not applicable since no regulated units[1] (i.e. land disposal units) are currently proposed at this facility.* The corrective action for units which operated prior to the implementation of RCRA regulations and for the RCRA-permitted units is covered in Permit Section 12B. In the event it is determined that a release has occurred from a permitted unit, the Permittee will be required to prepare and implement a Corrective Action Program that satisfies the requirements of 40 CFR 264.100. As of issuance of this Permit, there has been no identification of corrective action required at a permitted unit.

Any document submitted in support of a Corrective Action Program required under this part shall be adopted by reference as if fully set forth herein.

12A.1 COMPLIANCE SCHEDULE

The Permittee shall perform the following task(s) by the listed due date(s):

	Task	Date Due
1	*Reserved*	

[1] A "regulated unit" is defined in 40 CFR 264.90(a)(2) as "a surface impoundment, waste pile, and land treatment unit or landfill that receives hazardous waste after July 26, 1982

12B SUMMARY AND APPLICABILITY

The objective of the corrective action program at a permitted hazardous waste management facility is to evaluate the nature and extent of releases of hazardous wastes/constituents and, if necessary, implement appropriate corrective measures. The Permittee is required to implement corrective action in accordance with 40 CFR 264.101 and the conditions of this Permit in order to clean up releases and protect human health and the environment. The Permittee shall also follow applicable guidance, including but not limited to, the RCRA Corrective Action Plan, EPA 520-R-94-004, dated May 1994 (or most recent version).

12B.1 AUTHORITY

RCRA Section 3004(u) and 40 CFR 264.101, as adopted in NAC 444.8632, require that all hazardous waste permits issued by the Division address corrective action for all releases of hazardous wastes or hazardous constituents from any Solid Waste Management Unit (SWMU) at the facility, regardless of when the waste was placed in the unit or whether the unit is closed. These regulations further require that hazardous waste permits contain schedules of compliance for corrective action, where such corrective action cannot be completed prior to issuance of the permit.

NAC 445A.121 sets the standards applicable to all waters of the state and will be used to evaluate the impacts of any releases. NRS 445A.575 and 445A.465 are the statutes which define the authority of the Division to regulate the discharge of hazardous constituents to the waters of the state.

Section 301(c) of the Federal Comprehensive Environmental Response Compensation and Liability Act of 1980 (CERCLA) defines the area under the facility to be natural resources managed or controlled by the State of Nevada.

12B.2 RCRA/CERCLA INTEGRATION

12B.2.1 The Parties intend to integrate the Army's CERCLA response obligations and RCRA corrective action obligations which relate to the release(s) of hazardous substances, hazardous wastes, pollutants or contaminants covered in this permit. Remedial activities covered under this permit satisfy the corrective action requirements of Section 3004(u) and (v) of RCRA, 42 U.S.C. § 6924(u) and (v), achieve compliance with CERCLA, 42 U.S.C. § 9601 et seq; and meet and exceed all applicable or relevant and appropriate federal and state laws and regulations, to the extent required by Section 121 of CERCLA, 42 U.S.C. § 9621.

12B.2.2 Based upon the foregoing, the Parties intend that any corrective action selected under the RCRA permit will be considered under CERCLA as a deferral to RCRA for any CERCLA response needed to address any release(s) of hazardous substances, hazardous wastes, pollutants or contaminants at HWAD.

12B.2.3 The Parties intend also that sites receiving a CERCLA response will be treated under the RCRA permit as a deferral to CERCLA for any RCRA corrective action requirements under the permit for the release(s) of hazardous substances, hazardous wastes, pollutants or contaminants at HWAD.

12B.2.4 The Parties agree that with respect to any releases of hazardous substances, hazardous wastes, pollutants or contaminants deferred to CERCLA under this permit, RCRA shall be considered an applicable or relevant and appropriate requirement pursuant to section 121 of CERCLA, 42 U.S.C. §9621.

12B.2.5 The Parties recognize the requirement to obtain permits for response actions at those sites deferred to CERCLA under this permit shall be as provided for in CERCLA and the National Oil and Hazardous Substances Contingency Plan (NCP).

12B.3 SUMMARY AND HISTORY OF CORRECTIVE ACTION

Since 1974, site investigations and groundwater monitoring have been conducted by the Army and the US Geological Survey (USGS). The primary contaminants of concern are explosives (TNT) and Unexploded Ordnance (UXO). The individual contaminated sites vary in size and complexity. As of June 2000, 123 sites (SWMUs and AOCs) had been identified.

Remedial investigations of the SWMUs and other AOCs have been conducted under the Installation Restoration Program (IRP). The Permittee has been performing corrective action at the facility in accordance with the Installation Restoration Program (IRP) requirements, the initial September 12, 1990 Division of Defense and State Memorandum of Agreement and the biennial Cooperative Agreement, with oversight from the NDEP Bureau of Corrective Actions, Department of Defense Branch.

12B.4 CORRECTIVE ACTION FOR SWMUs AND AOCs

The Permittee must institute corrective action, as necessary, to protect human health and the environment for all releases of hazardous wastes or constituents from any SWMU at the facility, regardless of the time at which the waste was placed in the unit.

Corrective action shall be specified in accordance with this permit section. This section will contain schedules of compliance for such corrective action.

12B.4.1 SWMUs and AOCs Identified by the RCRA Facility Assessment (RFA):

Site investigations and groundwater monitoring have been conducted at the facility by the Army, US Army Environmental Hygiene Agency (USAEHA), US Army Toxic and Hazardous Materials Agency (USATHAMA), and US Geological Survey in various areas throughout the Depot since 1974. The current SWMUs and areas of concern (AOCs) were identified by earlier facility assessments, subsequent investigations, additional permitted units or other means, and are listed in Tables 12B.3a through 12B.3g, below.[i]

Table 12B.3a – SWMUs Regulated under 40 CFR 264 (RCRA-permitted units)

SWMU/AOC No.	SWMU Name
1	Building 106-22

[i] Tables 12B.3a through 12B.3g show the status of the SWMUs and AOCs at the time this permit was issued. Status information is maintained by the NDEP Bureau of Corrective Actions (BCA), Department of Defense Branch. Detailed descriptions of most of the SWMUs and AOCs which require corrective action activities are found in Permit Section 12B.7.

SWMU/AOC No.	SWMU Name
2	Building 106-23
3	Building 115- 9
4	Building 113-73A
5	Building 116-37
6	Building 116-38
7	Building 116-39
8	Building 116-41
9	Building 116-42
10	Building 116-43
11	Building 116-44
12	Building 116-45
13	Old Bomb Unit
14	RF-9 Incinerator (Building 117-3)
15	PODS Incinerator (Building 117-2)
16	BEDS Incinerator (Building 117-4)
17	*Reserved*

Table 12B.3b – SWMUs and AOCs Requiring No Further Action at this Time[ii]

SWMU/AOC No.	SWMU/AOC Name	Closure Date[iii]
HWAAP-B12	101-10 Catchment Pit	8/4/2000
HWAAP-B20	101-41 Catchment Pit	7/16/2009
HWAAP-B21	101-41/44 Catchment Pit	2/28/2012
HWAAP-B24	102-52 Acid Impoundment	10/6/2009
HWAAP-B27b	103-8/10 Oxidation Ditch	12/30/2014
HWAAP-B27c	103-20 Surface Impoundment	12/30/2014
HWAAP-H01	Fire Training Pit	8/19/2011
HWAAP-H02	Waste Lumber Open Burn Pit	12/30/2014
HWAAP-H04	Navy Side Landfill	2/15/2002
HWAAP-I07	101-44 Landfill	6/29/2012
HWAAP-I08	Building 70 Pit/Landfill	5/8/2012
HWAAP-J03	Building 70 Diesel Leak	7/16/2009
HWAAP-J29	Building 103-5 Landfill	6/26/2012
HWAAP-K03a	101-25 Underground Storage Tanks	7/16/2009
HWAAP-K03b	103-6 Underground Storage Tanks	4/21/2011
HWAAP-K03d	Building 13 Underground Storage Tanks	7/16/2009
HWAAP-K05	117-3 Underground Storage Tanks	7/16/2009
HWAAP-K10	Buried Paint	2/28/2012
Reserved	*Reserved*	*Reserved*

[ii] Contact NDEP-BCA for applicable Land Use Controls.

[iii] Date on which the No Further Action (NFA) - Closure Decision Document was issued by NDEP-BCA. Closure documents can be found with the Bureau of Corrective Actions (BCA) .

Table 12B.3c – SWMUs and AOCs Requiring a RCRA Facility Investigation (RFI)[iv]

SWMU/AOC No.	SWMU/AOC Name
Reserved	*Reserved*

Table 12B.3d – SWMUs and AOCs Requiring a Corrective Measures Study

SWMU/AOC No.	SWMU/AOC Name
Reserved	*Reserved*

Table 12B.3e – SWMUs and AOCs Requiring a Corrective Measures Implementation Plan

SWMU/AOC No.	SWMU/AOC Name
Reserved	*Reserved*

Table 12B.3f – SWMUs and AOCs that will be addressed at the Time of Facility or Range Closure

SWMU/AOC No.	SWMU/AOC Name
HWAAP-A06a	Old Bomb Disposal Area 1
HWAAP-A06b	Old Bomb Disposal Area 2
HWAAP-A06c	Old Bomb Disposal Area 3
HWAAP-A06d	Old Bomb Disposal Area 4
HWAAP-A06e	Old Bomb Disposal Area 5
HWAAP-C04	Old Bomb Popping Furnace 1
HWAAP-C05	Old Bomb Popping Furnace 2
HWAAP-G01a	Old Bomb OB/OD[v] Ground 1
HWAAP-G01b	Old Bomb OB/OD Ground 2
HWAAP-G01c	Old Bomb OB/OD Ground 3
HWAAP-I22	Old Bomb Open Burning Pit
HWAAP-I23	Old Bomb/Rocket Metal Landfill
HWAAP-K07	DDT Burial Site (Old Bomb)
Reserved	*Reserved*

[iv] These RFI's are being handled by the Bureau of Corrective Actions –Department of Defense Branch,
[v] OB/OD is Open Burning/Open Demolition legacy sites no longer in operation

Table 12B.3g – SWMUs and AOCs in Corrective Action (Construction/Operation)

SWMU/AOC No.	SWMU/AOC Name
HWAAP-B26	103-6 POL Pit
HWAAP-B27a	103-16 Ordnance Washout Impoundment
HWAAP-B29	103-41 Ordnance Washout Impoundment
Reserved	*Reserved*

12B.4.2 Additional SWMUs or AOCs

Additional SWMUs or AOCs may be discovered during the course of soil monitoring, field investigations, environmental audits, releases or other means. When found, they will be addressed as specified in Permit Condition 12B.5, below.

12B.4.3 Contamination Beyond Facility Boundary

The Permittee shall implement corrective actions beyond the facility boundary where necessary to protect human health and the environment. If warranted, the Permittee may demonstrate that despite the Permittee's best efforts, the Permittee was unable to obtain the necessary permission to undertake such actions. This demonstration must be approved by the Director. The Permittee is not relieved of responsibility to clean up a release that has migrated beyond the facility boundary where off-site access is denied. On-site measures to address such releases will be determined on a case-by-case basis. *[40 CFR 264.110(c)]*

12B.5 NOTIFICATION AND ASSESSMENT REQUIREMENTS FOR NEWLY IDENTIFIED SWMUs, AOCs AND RELEASES

12B.5.1 Notification

The Permittee shall notify the Director in writing, within fifteen (15) calendar days of discovery, of any additional SWMUs, AOCs and/or releases of hazardous waste discovered under Permit Condition 12B.4.2. The notification shall include, at a minimum:

1. A unique sequential identification number for the SWMU, AOC or release;
2. The location of the SWMU, AOC or release; and
3. All available information pertaining to the nature of the release (e.g., media affected, hazardous constituents released, magnitude of release, etc.).

12B.5.2 Assessment Report (AR)

The Permittee shall prepare and submit to the Director, within ninety (90) calendar days of notification, an Assessment Report (AR) for each SWMU, AOC or release identified under Permit Condition 12B.3.2. At a minimum, the AR shall provide the following information:

1. The unique sequential identification for the SWMU, AOC or release;
2. Location of the unit(s)/area(s) on a topographic map of appropriate scale, such as required under 40 CFR 270.14(b)(19);
3. Designation of type and function of unit(s) and/or use of area(s);
4. General dimensions, capacities and structural description of unit(s)/area(s) (supply any available plans/drawings);
5. Dates the unit(s)/area(s) was operated/used;

6. Specification of all wastes that have been managed at/in the unit(s)/area(s), to the extent available. Include any available data on 40 CFR 261 Appendix VIII or 40 CFR 264 Appendix IX constituents contained in the wastes; and
7. All available information pertaining to any release of hazardous waste or hazardous constituents from such unit(s)/area(s) (including groundwater, soil, air, surface water, and/or sediment data).

12B.5.3 Director's Determination

The Director shall determine the need for further investigations at the SWMU(s), AOC(s) or release site(s) covered in the AR. If the Director determines that such investigations are needed, the Permittee shall prepare a plan for such investigations. If the Director determines further investigation of the SWMU(s), AOC(s) or releases site(s) is required, the Permittee shall submit an application for a Permit modification, in accordance with 40 CFR 270 Subpart D.

12B.6 WORK TO BE PERFORMED

In the event of a release of a hazardous waste or constituent, or a requirement for conducting corrective action by way of the Director, the Permittee shall complete the following:

12B.6.1 RCRA Facility Assessment (RFA)

The Permittee shall complete a RCRA Facility Assessment (RFA) identifying the type of hazardous waste or constituents released, the location of the release, and any potential pathways. The Permittee shall submit this information to the Director in a written report.

12B.6.2 RCRA Facility Investigation (RFI)

The Permittee shall complete a RCRA Facility Investigation (RFI) characterizing the nature and extent of the release identified in the RFA. This information will be submitted to the Director in a written report.

12B.6.3 Corrective Measures Study (CMS)

If the Division determines that a corrective action is necessary, the Permittee shall conduct a Corrective Measures Study (CMS) to determine the most effective cleanup alternative. The purpose of the CMS is to identify and recommend specific corrective measures that will adequately correct the release. Remedy selection is the determination of which cleanup action will be implemented to correct the release and the time frames in which it must be implemented. The Permittee shall submit this information to the Director in a written report.

12B.6.4 Corrective Measures Implementation (CMI)

After the Director evaluates the corrective measure alternatives presented in the approved CMS Report, the Director will propose or accept a corrective measure (or measures) for implementation at the facility. The Permittee shall submit a certified report documenting that the corrective measures have been completed in accordance with the approved remedy.

12B.7 DESCRIPTIONS OF SWMUs AND AOCs

The intended action and status for the following SWMUs and AOCs can be found in Tables 12B.3a through 12B.3g.

12B.7.1 Old Bomb Disposal Area 1 (HWAAP-A06a)

HWAAP-A06a, an unlined landfill (approximately 50 acres), is located approximately eight miles west and one-mile northwest of Rocket Mountain. The landfill was in operation from 1943 to 1946 for the disposal of, by means of burn or detonation, approximately 10,000 tons of mines, warheads, bombs, incendiary devices, and miscellaneous ordnance. The ground is stained by black ash and rusty-red oxidized TNT residue/ammonium picrate. Wind erosion and surface flash flooding may cause these contaminants to be dispersed. In 1994, an airborne ground penetrating radar (AGPR) survey over both HWAAP-A06a and G01a was completed. Forty-four targets were surveyed over a 63-acre area. In 1994, an Army evaluation team visited the site to determine if the UXO at the site pose an imminent hazard. As result of the evaluation, an imminent threat to human safety was determined and further action is required.

12B.7.2 Old Bomb Disposal Area 2 (HWAAP-A06b)

HWAAP-A06b is a landfill area that covers about 2 acres and is located one mile southwest of Rocket Mountain. Operations began in 1944. It is not known when operations ceased. Disposal of ordnance and hundreds of drums of unknown material occurred in the landfill. A 1987 USAEHA report indicates that the disposed waste may include picric acid and explosives. A 1989 investigation conducted by International Technology Corporation (IT) included geophysical surveying, five test pits, and soil sampling. Elevated levels of explosives (TNT 96 mg/kg), metals, and picric acid (62 mg/kg) were found, as well as geophysical anomalies. In 1994, an AGPR survey was completed. Coverage included the entire site with multiple targets surveyed in the western and northwestern trenches. In 1994, an Army evaluation team visited the site to determine if the UXO at the site pose an imminent hazard. As result of the evaluation, an imminent threat to human safety was determined and further action is required.

Beginning July 2013, work is being done at Compliance Restoration site CCHWAAP-O23. Surface removal of visible hazards within HWAAP-A06b, a pit within that site, will be completed. Once visible hazards are removed, the pit will be backfilled. Geophysics will be conducted on a 40-acre area surrounding the SWMU to identify additional burial pits in the vicinity of HWAAP-A06b. HWAAP-A06b will be addressed when the range is closed.

12B.7.3 Old Bomb Disposal Area 3 (HWAAP-A06c)

HWAAP-A06c is a landfill area that measures 500' x 100' and is located one mile south of Rocket Mountain. Operations began in 1944. It is not known when operations ceased. A 1987 USAEHA report indicates that disposal of many drums and possible ordnance items occurred in this landfill. Moreover, installation personnel have noted solvent odors from some partially excavated pits. A 1989 investigation conducted by (IT) included geophysical surveying, one test pit and soil sampling. Elevated levels of metals were found, as well as geophysical anomalies. In 1994, an AGPR survey was completed, and an Army evaluation team visited

the site to determine if the UXO at the site posed an imminent hazard. As result of the evaluation, an imminent threat to human safety was determined and further action is required.

12B.7.4 Old Bomb Disposal Area 4 (HWAAP-A06d)

HWAAP-A06d is a landfill and waste treatment site that is located one-half mile southeast of Rocket Mountain and covers about 300 square feet with two partially filled trenches flanking the east and west sides. Operations began in 1944. It is not known when operations ceased.

A 1987 USAEHA report indicates that disposal of wastewater containing explosives occurred in addition to disposal and burning of PEP (pyrotechnic, explosives and propellants) and ordnance. Explosive staining in trenches was also observed. A 1989 investigation conducted by IT included geophysical surveying, seven test pits, and soil sampling. Elevated levels of explosives (TNT 130,000 mg/kg), metals, and picric acid (3,300 mg/kg) were found. Geophysical anomalies were also found. In 1994, an AGPR survey was completed over the entire site at several target locations, and an Army evaluation team visited the site to determine if the UXO at the site pose an imminent hazard. As result of the evaluation, an imminent threat to human safety was determined and further action is required.

12B.7.5 Old Bomb Disposal Area 5 (HWAAP-A06e)

HWAAP A06e is a waste pile and treatment site that measures about 850' x 100' and is located immediately east of Old Bomb Disposal Area No. 4. Three 150'x30'x20' trenches are located in the center of this site. Operations began in 1940. It is not known when operations ceased. A 1987 USAEHA report indicates that many tons of ordnance were burned and/or landfilled at this site. Explosive staining and exposed ordnance have been observed.

A 1989 investigation conducted by IT included geophysical surveying, four test pits, and soil sampling. Elevated levels of metals were found, as well as the presence of geophysical anomalies. In 1994, an AGPR survey was completed over the entire site at several targets, and an Army evaluation team visited the site to determine if the UXO at the site pose an imminent hazard. As result of the evaluation, an imminent threat to human safety was determined and further action is required.

12B.7.6 101-44 Surface Impoundment (HWAAP-B04)

HWAAP-B04 is a double-lined surface impoundment approximately 140'x240'x15', having a capacity of 586,000 gallons designed to collect explosive-contaminated wash down water from demilitarization operations. The impoundment was never used but was constructed using soil from a previous unlined impoundment that had collected explosive wash down water from 1944 to 1977. The newer lined impoundment was constructed at the same location as the older unlined impoundment.

A 1989 Remedial Investigation (RI) included collection of near-surface, subsurface and groundwater samples from within and adjacent to the impoundment. Explosives and petroleum hydrocarbons were detected in the soil samples and explosives were detected in the groundwater at levels up to 30 mg/L. A Remedial Investigation in 1994 included 4 surface soil samples collected from within the impoundment where visual staining of explosives were observed, and groundwater samples from existing wells. Elevated concentrations of explosives

(240 mg/kg of RDX, and 22 mg/kg of 1,3,5-Trinitrobenzene) were detected in these soil samples. Groundwater samples detected high level of explosives (2600 ug/L of RDX, 3.6 ug/L of 1,3,5-TNB, 18 ug/L of 4-Amino-DNT, 40 ug/L of picric acid). Sixty-eight feet of CPT sounding was conducted at 2 locations to assess the optimal depths to collect subsurface soil samples. No subsurface soil samples were collected. Onsite bioremediation was selected as the corrective action to be used at the site.

Based on sampling results, remediation of explosives was recommended for a minimum of 8,600 cubic yards of soil at the site. Excavation and onsite bioremediation in static wind rows began in 1999 and continued through May 2006. More than 9,500 cubic yards of explosives-impacted soils were excavated from the impoundment and from the surrounding surface soils and treated through composting at the site. The impoundment had been excavated to a depth of approximately 15 feet below surrounding grade. In 2009, approximately 230 cubic yards (350 tons) of RDX and TNT impacted soil were removed. Backfill operations at the SWMU B04 pit began on March 3, 2009 and were completed on March 25, 2009. Approximately 8,500 cubic yards or approximately 12,750 tons of composted soil were backfilled into the pit at B04.

Groundwater at the site continues to be evaluated due to RDX concentrations in excess of tap water Regional Screening Levels (0.61 □g/L). There are 17 monitoring wells associated with the site. The most recent groundwater sampling event occurred in November 2015. RDX concentrations range from non-detect to 470 µg/L. In August 2017, the Army submitted a Corrective Measures Study for SWMU B04 to evaluate Corrective Action Alternatives and to recommend the preferred corrective action to eliminate or mitigate potential threats to human health and the environment from RDX in groundwater. The recommended alternative for the site is source area enhanced reductive biodegradation with monitored natural attenuation and land use controls.

12B.7.7 101-10 Catchment Pit (HWAAP-B12)

HWAAP-B12 is an inactive unlined surface impoundment located east of building 101-10 and measures 18 by 18 by 6 feet deep. The pit is eroded and partially filled with windblown sand. Two discharge pipes enter the impoundment from the west and an additional pipe enters from the south. No piles of dredged soil are evident at this impoundment. The impoundment was in operation from 1940 to the early 1970's and received large amounts of wastewater containing TNT and RDX. Visible evidence of TNT stained soils in and surrounding the impoundment was noted during investigations.

A Remedial Investigation in 1994 included surface soil and hand auger sampling, and CPT drilling to a depth of 56 feet. Three surface soil samples, one hand auger sample and two CPT soil samples were collected and analyzed for explosives and metals. Elevated concentrations of RDX (1900 mg/kg), TNB (70 mg/kg), TNT (2600 mg/kg), DNT (4.8 mg/kg) and Beryllium (0.60 mg/kg) were detected in the soil. Low concentration of picric acid was also detected. Investigation results show that the concentration of explosives reduces significantly with depth. Groundwater is estimated to be at approximately 120 feet bgs. Soil contaminated with explosives was treated by bioremediation in 1999. A no further action decision document for soil was signed on August 4, 2000.

12B.7.8 101-41 Catchment Pit (HWAAP-B20)

HWAAP-B20 consists of three inactive unlined surface impoundments, tow steel settling tanks, and one trench located southwest of Building 101-41. The impoundments are interconnected and range from 1,300 to 2,700 square feet in area and between 6 and 10 feet deep. Associated with them is a trench which runs west. Two steel tanks placed in tandem between Buildings 101-41 and the impoundments allowed for settling of solids prior to discharge to the impoundments. No sludge or water was contained in the steel tanks. The impoundments and trench are partially filled with windblown sand. Piles of dredged soils are located on the sides of the impoundment. This impoundment operated from 1940 to the early 1970's and received large amounts of wastewater containing TNT and RDX.

A Remedial Investigation in 1994 included surface soil and hand auger sampling, and CPT drilling. Seven surface soil samples, seven hand auger samples and four CPT soil samples were collected and analyzed for explosives and metals. Visible evidence of TNT-stained soils were observed in the impoundments. Elevated concentrations of RDX (310 mg/kg), 1,3,5-TNB (87 mg/kg), 2,4,6-TNT (20000 mg/kg), 2-Amino-DNT (20 mg/kg), and 2,4-DNT (18 mg/kg) were detected in soil exceeding the remediation criteria. None of the metals were detected at levels exceeding the soil remediation criteria. Groundwater is estimated to be at approximately 120 feet bgs. All further action for this unit has been included with the HWAAP-I15 actions.

12B.7.9 101-41/44 Catchment Pit (HWAAP-B21)

HWAAP-B21 is an inactive, unlined surface impoundment pit, located between Buildings 101-41 and 101-44 and east of Building 101-41. It measures 150 by 140 feet by 8 feet deep. The impoundment has been eroded and partially filled with windblown sand.

This impoundment operated from 1940 to the early 1970's and received steam condensation. There is no evidence of TNT or Yellow D stained soil. In a 1994 investigation, surface and subsurface soil samples were collected. Samples were analyzed for nitrate, picric acid, metals and explosives. No explosives were detected, and metals were within the background range for the Depot. In 1997, additional surface and near-surface soil samples were collected. TNT was detected in berm soil samples from the site, but the concentrations were below site action levels. No contaminants of concern were identified for the site. The site was granted no further action determination on February 28, 2012.

12B.7.10 102-52 Acid Impoundment (HWAAP-B24)

HWAAP-B24 is an open pit located adjacent to Building 102-52. The pit was used from 1950 to 1980 for discharged battery electrolyte waste fluid, battery acid spills and wash down water from the battery shop, Building 102-52. Acid and large quantities of water flowed from this building into this pit.

There is visible evidence of stained soil. A Remedial Investigation in 1994 included two surface soil samples, two hand auger samples and two CPT soil samples. Samples were collected within the pit and analyzed for explosives, metals, SVOCs, VOCs, PCBs, and TPH. Elevated lead (620 mg/kg), RDX (150 mg/kg), TPH (34000 mg/kg), and PCB-1260 (36 mg/kg) were detected. Low concentrations of SVOC, explosives except RDX, and TPH-gasoline were

also detected. Sampling results shows contaminant concentrations generally decreased with depth. Groundwater is estimated to be approximately 100 feet bgs. A no further action determination was granted on October 6, 2009.

12B.7.11 103-6 POL Pit (HWAAP-B26)

HWAAP-B26 is an inactive unlined surface impoundment located north of Building 103-6. The impoundment measures 25-feet by 85-feet by 8-feet deep. Standing water and POL sludge is present in the pit, and condensate effluent from a steam line ditch was flowing into the pit. The impoundment operated from the 1940s to 1980s and received steam line blowdown water, fuel oil, crude oil and other waste POL products.

There is visible evidence of POL stained soils in and around the pit. In 1992 the impoundment was backfilled with soil to almost grade level. The pit is currently characterized by a depressed area approximately twice as large as the originally reported size of the impoundment.

A Remedial Investigation in 1994 included surface soil and hand auger sampling, and CPT drilling. Two hand auger samples and two CPT soil samples were collected from within the pit and analyzed for explosives, metals, SVOCs, VOCs, PCBs, and TPH. All groups of chemicals were detected in the surface and subsurface soil. 16,000 mg/kg of TPH-D and 120 was detected in one sample at 6 to 6.5 feet bgs and 0.17 mg/kg of TNT was detected at a depth of 5 feet.

The estimated depth to groundwater at this site is approximately 95 feet. Light non-aqueous phase liquids (LNAPLs) were identified in groundwater monitoring wells at the site during an investigation done in 2010. The site is currently being remediated for LNAPL in groundwater. An LNAPL skimming system has been installed in groundwater monitoring wells at the site and remediation is ongoing.

In 2015 and 2016, six additional monitoring wells were installed at the site. There are 13 monitoring wells associated with the site. Three monitoring wells contain LNAPL. In August 2017, a Design Support Investigation was drafted as a supplement to the 2012 Corrective Measures Implementation Report to summarize the results of continued free product extent determination and recovery at SWMU B26. The report recommends LNAPL skimming for continued free product removal at the site. Development of an enhanced skimming system is recommended. The LNAPL recovery system was restarted in September 2018.

Product recovery began in 2012, and the system has operated sporadically. Since 2012, 285 gallons of free product have been recovered from the site.

12B.7.12 103-16 Ordnance Washout Impoundment (HWAAP-B27a)

HWAAP-B27a consists of eight inactive unlined surface impoundments and two drainage ditches located northwest of the ordnance washout Building 103-16. The eight impoundments occupy a total area of 10 acres. Each impoundment is up to 8 feet deep. Two drainage ditches exist at the site. One ditch extends northwest from the facility for approximately one-half mile and the second ditch extends southeast of the facility and is branched to the northwest near the impoundments.

The impoundments have eroded and are partially filled with windblown sand. There is visible evidence of the several inches of Yellow D and TNT stained soils in the pits and sidewalls. The drainage ditches and the pits have potentially received up to 20,000 gallons of wastewater containing Yellow D, RDX, TNT, and red fuming nitric acid between 1946 and 1981. Groundwater samples from the area have been analyzed and nitrates were detected above 70 ug/l (USGS phase II investigation). No significant levels of TNT, RDX or ammonium picrate were detected in the groundwater. No groundwater remediation is required.

Remedial Investigation work in 1994 included collecting 15 surface soil samples, 14 hand auger samples and 7 cone-penetrometer soil samples from the pits and the ditches. The samples were analyzed for explosives and metals. Metals and explosives were detected in surface soils in the ditches and in the impoundments. In general, the concentrations decreased with depth. TNT was detected at concentrations of 700 mg/kg and 340 mg/kg in surface samples and then decreased to 71 mg/kg at a depth of 5 feet. Elevated levels of lead (200 mg/kg), beryllium (1.1 mg/kg), cadmium (23 mg/kg), and total chromium (120 mg/kg) were also detected in the surface soils. Additional sampling for ammonium picrate was performed in 2002. A no further action determination was granted on July 11, 2012.

While the SWMU was closed, the five site monitoring wells were added to the Basewide Groundwater Monitoring Program. The site wells have had exceedances of PCE, TCE, and RDX. The wells were sampled from 2011 through 2015. By 2015, only RDX exceeded its action level of 0.61 µg/L in one monitoring well. In August 2016, the Army requested an exemption-based no further action. The NDEP concurred with that request and on October 4, 2016, provided the Army a Preliminary Decision to Close letter. The unit does not have a final decision document and the monitoring wells have not yet been abandoned.

12B.7.13 103-8/10 Oxidation Ditch (HWAAP-B27b)

HWAAP-B27b is an unlined ditch of approximately 3,000 square feet, used from the 1950's to the 1970's to contain discharged wastewater from cleaning ammunition and charge cans. The wastewater was known to contain caustics, paint and sandblasting residues.

In 2011, a Remedial Investigation Addendum/Feasibility Study was conducted to investigate the nature and extent of soil contamination associated with previously uninvestigated drain line segments and components. Lead, mercury, and arsenic were detected in excess of their industrial screening levels in at least one soil sample. Arsenic concentrations at SWMU B27b were determined to be within background concentration; therefore, lead and mercury were determined to be the only contaminants of concern (COC) for SWMU B27b.

A 2012 Remedial Action Decision Document, approved by NDEP, selected a remedy for SWMU B27b. The remedy includes excavation and off-site disposal to remove lead and mercury above the risk-based screening levels, which are the U.S. Environmental Protection Agency (EPA) regional screening levels (RSL) for industrial land use. The corrective measures also include removal and disposal of 2,000 feet of drain lines, two settling tanks, two vaults, and seven catch basins/sumps from the site. Excavation and removal work began at the site in July 2013. The final decision document for closure was issued December 30, 2014.

12B.7.14 103-20 Surface Impoundment (HWAAP-B27c)

HWAAP-B27b is an unlined surface impoundment (approximately 100'x10'x10') and ditch with associated underground piping located west of Building 103-20. It was used for the discharge of wastewater from nearby operations of cleaning and sandblasting. The operations were conducted from the 1950's to the 1970's.

Investigation activities completed in 1994 include 5 surface soil samples and 13 subsurface soil samples collected from 5 borings. Elevated concentrations of metals (3500 mg/kg of lead, 890 mg/kg of chromium) detected in the soil exceeded NDEP criteria, 20xTCLP.

A Remedial Investigation Addendum/Feasibility Study in 2011 defined the nature and extent of soil contamination associated with two previously uninvestigated drain lines at the site. Drain line c1 was removed during the investigation as a result of its deteriorated condition. Lead and arsenic were identified at drain line c2 in excess of industrial screening levels; however, arsenic was within background concentrations.

A 2012 Remedial Action Decision Document was approved by NDEP and selected a remedy for SWMU B27c, including excavation and off-site disposal. This would remove lead above the risk-based screening levels, which is the EPA RSLs for industrial land use. The corrective measures also include removal and disposal of 17 feet of drain line. Excavation and removal work began at the site in July 2013. The final decision document for closure was issued December 30, 2014.

12B.7.15 103-41 Ordnance Washout Impoundment (HWAAP-B29)

HWAAP-B29 is a series of inactive unlined surface impoundments connected by steel troughs covering an area of approximately 0.25 square miles north of Building 103 41. Nine impoundments at this site, measuring approximately 25 by 100 feet by 3 feet deep each, were used for TNT washwater from demilitarization. Five larger ponds, measuring approximately 100 by 100 feet by 10 feet deep, were used for ammonium picrate washwater from demilitarization.

The impoundments were constructed in. From 1964 to 1968 the impoundments were used for disposal of explosive wastes. In addition, sodium sulfate and other reaction products may have been discharged into the impoundments. Once the water evaporated the remaining waste was burned in place. Ammonium picrate, TNT-stained soils, and black burn residue are evident in the impoundments. The impoundments have eroded and are partially filled with windblown sand.

Groundwater sampling (1974 and 1980) at the site detected up to 620 μg/L of TNT and other organic and inorganic, nitrogen-bearing compounds. Groundwater sampling in 2000 detected up to 29 μg/L of TNT and other organic, inorganic, and nitrogen-bearing compounds. Current groundwater monitoring shows low levels (below action level) of explosives. Nitrate levels exceed MCLs. Groundwater sampling from monitoring well IRPMW02 had nitrates at 57.9 mg/L.

Remedial Investigation work in 1994 included groundwater sampling, surface soil and hand auger sampling, and cone penetrometer soundings. A pilot study successfully treated 300 cubic yards of ammonium picrate contaminated soil using wind row composting. During 2003,

through a teaming effort with NDEP, PRGs for ammonium picrate were raised from 7 ppm to 120 ppm for an industrial site to expedite cleanup of this site. A decision document approving bioremediation as the remedy was signed by regulators on September 9, 1995.

Remedial activities were performed from 2000 to 2005 in accordance with a NDEP-approved work plan. The scope of work included excavation and bioremediation of 49,827 cubic yards (yd^3) of explosives-contaminated soil from the former unlined ponds to an explosives remediation site for treatment using ex-situ windrow bioremediation. The purpose of the remedial activities was to protect human health and the environment from surface and near-surface exposure.

The USEPA Region 9 established preliminary remediation goals (PRGs) for a number of compounds, including individual COPCs present at SWMU B29. The USEPA industrial-level PRGs for soil were established as site action levels with concurrence from NDEP, HWAD, and the U.S. Army Corps of Engineers (USACE). Soil removal and treatment continued until confirmation sampling and laboratory analyses indicated that all explosives concentrations in soil at the site were less than the PRG/action levels.

Groundwater evaluations at the site indicate elevated concentrations of nitrates and explosive (TNT and 2,4-DNT). In 2011, several groundwater monitoring and sampling events were conducted. Monitored natural attenuation (MNA) was chosen as the remedial technology for the site. Groundwater monitoring to evaluate MNA occurred through 2018. TNT, 2,4-DNT, RDX, and nitrate were above action levels. The Army submitted a request for exemption-based no further action in June 2019. The NDEP concurred with that request and sent a Preliminary Decision to Close letter in September 2019. The Army must provide a shape file of groundwater contamination remaining at the site above action levels and prepare a Final Closure Decision Document.

12B.7.16 Old Bomb Popping Furnace 1 (HWAAP-C04)

HWAAP-C04 is a metal furnace designated as Popping Furnace No. 1, located approximately ½ mile southwest of Rocket Mountain. It measures 10' x 10' x 5'. It has metal sides and a door with a grated top and dirt floor. The incinerator is bermed and partially covered with soil. Ash and burn residue cover the furnace floor. An open pit is located behind the site and was used as a disposal site for ash and burn residue. Operations began in the 1930s and ended in the 1970s. A 1987 USAEHA report indicates that the furnace was used to destroy all types of PEP (propellants, explosives and pyrotechnic) by soaking the dunnage with diesel fuel and igniting it. A 1989 investigation conducted by IT included soil sampling of three pits. Evidence of elevated concentrations of metals was found. An investigation in 1994 included airborne ground penetrating radar (AGPR) surveying over the entire site at several target locations. Long term monitoring for the Old Bomb Area started in 1997 and will continue.

All ranges, which include some disposal areas at HWAD, were originally included in the Installation Restoration Program (IRP), but no progress on restoration could be made because of the dangers of unexploded ordnance (UXO) and inaccessibility to the sites. These sites have now undergone review under the U.S. Army Active/Inactive Range Inventory. Under the Phase II Range Inventory, ranges associated with Old Bomb, Walker Lake Test Range and the NIOTC Range have been determined to be active ranges. Corrective action is required by the

RCRA Permit. NDEP considers this site an uncharacterized site that will be addressed by the U.S. Army when the active range is closed. HWAAP-C04 has been incorporated into the Military Munitions Response Program (MMRP). Corrective action requirements at this site will be addressed in five-year reviews based on groundwater results and change in range status.

Groundwater monitoring for pesticides, volatile organic compounds, and explosives will continue, in accordance with the approved base-wide groundwater monitoring plan. There are three wells that cover the eleven Old Bomb sites. Over the years, the monitoring frequency has been reduced and the analyte suite has been refined. No detects have ever been found.

12B.7.17 Old Bomb Popping Furnace 2 (HWAAP-C05)

HWAAP-C05 is a metal furnace designated as Popping Furnace No. 2. The furnace is about 100 yards southeast of HWAAP-C04. HWAD personnel constructed the furnace by using a round steel cylinder measuring 4' x 20' and connected it to a 20' high smokestack. The furnace is underground and bermed with earth. Ash and burn residue cover the furnace floor. An open pit is located behind the site and was used as a disposal site for ash and burn residue. Operations began in the 1930s and ended in the 1970s. A 1987 USAEHA report indicates that the furnace was used to destroy all types of PEP (propellants, explosives and pyrotechnic) by soaking the dunnage with diesel fuel and igniting it. A 1989 investigation conducted by IT included soil sampling of three pits. Evidence of elevated concentrations was found for metals. Investigations in 1994 included an AGPR survey over the entire site at several target locations. Long term monitoring for the Old Bomb Area started in 1997 and will continue

All ranges, which include some disposal areas at the HWAD, were originally included in the Installation Restoration Program (IRP), but no progress on restoration could be made because of the dangers of unexploded ordnance (UXO) and inaccessibility to the sites. These sites have now undergone review under the U.S. Army Active/Inactive Range Inventory. Under the Phase II Range Inventory, ranges associated with Old Bomb, Walker Lake Test Range and the NIOTC Range have been determined to be active ranges. Corrective action is required by RCRA permit. NDEP considers this site an uncharacterized site that will be addressed by the U.S. Army when the active range is closed/transferred/transferring. HWAAP-C05 has been incorporated into the Military Munitions Response Program (MMRP). Corrective action requirements at this site will be assessed in five-year reviews based on groundwater results and change in range status.

Groundwater monitoring for pesticides, volatile organic compounds, and explosives will continue in accordance with the approved base-wide groundwater monitoring plan. There are three wells that cover the eleven Old Bomb sites. Over the years, the monitoring frequency has been reduced and the analyte suite has been refined. No detects have ever been found.

12B.7.18 Old Bomb OB/OD Ground 1 (HWAAP-G01a)

HWAAP-G01a, a waste treatment site, is adjacent to HWAAP-A06a and is located approximately eight miles southeast of the HWAD industrial facility and one-mile northwest of TV Hill. There is significant overlap with A06a and G01a. Together, both cover approximately 50 acres. The site was used from 1940 to the late 1950's to burn and detonate reactive hazardous waste such as mines, warheads, bombs, incendiary devices, miscellaneous ordnance and PEP. The surface of the site had been physically rearranged, and there is one

trench measuring 300'x15'x15'. The ground and trench are stained with black ash and rusty red oxidized TNT residue. Surface flooding could erode into closed cells and move solid waste or leachates downstream to other areas on the fan or plain surface.

The Installation completed and submitted a closure plan for this site to the State of Nevada in March 1985. No physical closure activities have occurred. Soil sampling performed by USAEHA in 1981 identified explosives. Groundwater samples were reportedly clean in the 1981 Survey and Assessment of HWAD report prepared by USATHAMA. Investigation in 1994 included AGPR surveying over both A06a and G01a. Forty-four targets were surveyed over a 63-acre area. Also, an Army evaluation team visited the site to determine if the UXO at the site posed an imminent hazard. As result of the evaluation, an imminent threat to human safety was determined and a Risk Assessment Code (RAC) 2 was assigned. Old Bomb is an active RCRA-permitted site and is not eligible for Installation Restoration Program (IRP) funds. The HWAAP-G01a site will be addressed when Old Bomb is closed.

12B.7.19 Old Bomb OB/OD Ground 2 (HWAAP-G01b)

HWAAP-G01b is a waste treatment site which includes three individual ravines. Operations began in 1940 and ended in 1970. A 1987 USA EHA report indicates that many tons of ordnance were burned or detonated in this area. The waste was then left in piles. There is visible staining of explosives and the site is littered with melted ordnance.

A 1989 investigation conducted by IT included geophysical surveying of two test pits and soil sampling. Evidence of elevated levels was found for metals. Investigation in 1994 included an AGPR survey over many open pits with metallic debris. Also, an Army evaluation team visited the site to determine if the UXO at the site posed an imminent hazard. As result of the evaluation, an imminent threat to human safety was determined. Long term groundwater monitoring for the Old Bomb Area started in 1997. Groundwater monitoring for pesticides, volatile organic compounds, and explosives will continue in accordance with the approved base-wide groundwater monitoring plan. Over the years, the monitoring frequency has been reduced and the analyte suite has been refined. No detects have ever been found.

NDEP considers this site an uncharacterized site that will be addressed by the U.S. Army when the active Old Bomb range is closed. HWAAP-G01B has been incorporated into the MMRP. Corrective action requirements at this site will be assessed in five-year reviews, based on groundwater results and change in range status.

12B.7.20 Old Bomb OB/OD Ground 3 (HWAAP-G01c)

HWAAP-G01c is a waste treatment site and is located approximately one-half mile southeast of Rocket Mountain. The site measures about 1,000' x 300' and is divided into 10 sections separated by 10' soil berms. Operations began in 1940 and ended in 1970. A 1987 USAEHA report indicates that PEP (propellants, explosives and pyrotechnic) was burned at this site. There is visible staining of explosives and the site is littered with ordnance. A 1989 investigation conducted by IT included geophysical surveying, installation and sampling of groundwater monitoring wells, two test pits, and soil sampling. Groundwater was encountered at 140 feet bgs. Elevated levels of explosives (TNB 110 mg/kg) were detected in the soil. No explosives were detected in the groundwater. Investigation in 1994 included an AGPR survey over the area. Also, an Army evaluation team visited the site to determine if the UXO at the

site posed an imminent hazard. As result of the evaluation, an imminent threat to human safety was determined. Long term monitoring for the Old Bomb Area started in 1997. Groundwater monitoring for pesticides, volatile organic compounds, and explosives will continue in accordance with the approved base-wide groundwater monitoring plan. Over the years, the monitoring frequency has been reduced and the analyte suite has been refined. No detects have ever been found.

NDEP considers this site an uncharacterized site that will be addressed by the U.S. Army when the active range is closed. HWAAP-G01C has been incorporated into the MMRP. Corrective action requirements at this site will be assessed in five-year reviews based on groundwater results and change in range status.

12B.7.21 Fire Training Pit (HWAAP-H01)

HWAAP-H01 is a concrete slab and foundation of the former movie theater located northwest of Thorne Road and north of the main gate of HWAD. The concrete slab measures 60 by 20 feet and slopes to the east. It was used for fire training by igniting and extinguishing waste petroleum, oil, and lubricants (POLs) on the slab. A three-foot high retaining wall and earthen berms were used to contain the fuel on the slab. This site was used for fire training for an undetermined period receiving various fuels and crankcase oils.

Visible evidence of POL stains is on the surrounding soils and fuel contaminated is visible within the basin. The expansion joints of the slab are degraded, potentially allowing POL to leak into the soils. A Remedial Investigation in 1994 included surface soil and hand auger sampling, and CPT drilling. Two surface soil samples, two hand auger samples and four CPT soil samples were collected around the slab and analyzed for SVOCs, VOCs, pesticides and PCBs, TPH, explosives and metals. Metals, TPH diesel and SVOC and dioxin were detected in the soil samples. The RFI conducted in 1997 indicated that: one of the twenty-nine field samples exceeded the TPH action level of 100 mg/kg with a value of 270 mg/kg; seven of eleven field samples exceeded the arsenic industrial PRG but were within the natural background level for the area; and one sample exceeded the arsenic industrial PRG and was slightly above the background level. The RFI report recommended closure of SWMU-H01. Closure was approved on August 19, 2011.

12B.7.22 Navy Side Landfill (HWAAP-H04)

HWAAP-H04 is an inactive landfill covering approximately 11 acres. The specific period of operation of the landfill and the types of material that was disposed in the landfill are unknown, and no environmental studies have been carried out at this landfill. The landfill contains primarily domestic, office and general industrial/commercial waste generated from the operations and maintenance at the base.

Soil samples were collected in 1997. The only metal found with a concentration greater than its maximum expected background level was mercury (0.2 mg/kg and 0.3 mg/kg). None exceeded the PCG for mercury, 24 mg/kg. Two pesticides (4,4-DUE and 4,4-DDT) were found in only one of the nine soil samples at a maximum concentration of 0.002 mg/kt. No explosives, VOC's or herbicides were found in any of the subsurface soil samples. Limited unexploded ordnance was found at the site. Long term monitoring started in 1997.

An unknown source of VOC's and SVOC's in the groundwater was investigated. None of the VOC's or SVOC's in groundwater were higher than their respective action levels. No explosive compounds were found in the groundwater. Closure was approved on February 15, 2002.

12B.7.23 110 Group OB pits (HWAAP-I02)

HWAAP-I02 is a disposal area that includes pits for wastewater treatment and open trenches used for open burn and disposal of ordnance. Visible staining of explosives is present on the surface soils. The area appears to have been in operations since the early 1950's based on aerial photographs, however, use and history of the site is not well documented. Previous investigations (1988, 1989 & 1992) included magnetometry surveys and exploration pits. Soil samples collected from these pits contained elevated concentrations of explosives and metals. Four monitoring wells were installed to assess the impact to groundwater. Concentrations of explosives in groundwater exceeded 70 ug/L, with elevated concentrations of metals. A Remedial Investigation in 1994 included 1.4 acres of 10-foot spacing GPR, within a 4-acre area of reconnaissance airborne GPR to delineate pits and trenches. Airborne GPR identified two targets as buried drums, and surface GPR delineated five anomalies as former pits. Ten surface soil samples and 39 near surface samples were collected to delineate the extent of the chemicals of concern. Surface samples contained 2,4-Dinitrotoluene and 2,6-dinitrotoluene up to 860 mg/kg and 70 mg/kg, respectively. Three 20-foot CPT soundings were drilled to define the optimum depth to collect subsurface soil samples. No subsurface soil samples were collected.

Previous investigations have indicated that burn material at the site is potentially hazardous due to elevated lead concentrations and is expected to require treatment as part of the corrective action

SWMU I02 was reported to have been used for the open burning and pit disposal of bulk explosives, propellant, metal parts, chemical warfare training compounds, and shipping containers. Previous investigations have been performed that have identified several geophysical anomalies within an area of concern referred to as the "Pits Area". These geophysical anomalies are known and/or suspected to be former burn pits. Samples are required from within and above burn material located within this area of concern to support the remedy for the site. Due to the reported historic use of SWMU I02 for the open burning of munitions-related material, Department of Defense (DoD) Ammunition and Explosives Safety Standards, 6055.09-M, Volume 7, stipulates that the site will be considered as having a moderate to high probability of encountering Munitions and Explosives of Concern (MEC). Additionally, DoD 6055.09-M Volume 7 states Discarded Military Munitions (DMM) that have experienced an abnormal environment (e.g., attempted demilitarization by open burning) will be considered equally dangerous and managed as Unexploded Ordnance (UXO). Therefore, UXO support will be required during the collection of additional data to ensure potential MEC, if encountered, will be identified, isolated and disposed of properly.

The Corrective Measure chosen for SWMU I02 was the installation of a 36-inch thick native soil cover over berms and pits containing lead and explosives in soil. In addition to the soil cover, Land Use Controls and post-closure care were indicated for the SWMU. Pits were filled and berms were knocked down in order to cover the site. Four diversion berms were installed

on top of the cover. Three drainage ditches run along the north, west, and south sides of the cover draining into a detention basin. A Completion Report was prepared for the work in December 2014. Site inspections have been occurring annually. Two landfill repair efforts have been conducted to repair sedimentation and erosion in the drainages, on the landfill cover, and the spillways into the detention basin as well as animal burrowing in the landfill cover at SWMU I02. Four groundwater monitoring wells at the site will be sampled every four years.

12B.7.24 101-44 Landfill (HWAAP-I07)

HWAAP-I07 is an open pit landfill formerly used to store various large scrap metal items. It is likely that diesel fuel from demilitarization operations (Building 101-44) was disposed of at this site. This site was used from the 1960's to the early 1980's. Investigation in 1994 included 10 soil gas samples and 8 near surface soil samples. The soil samples contained up to 15,000 mg/kg of TPH-D. BTEX was detected in levels up to 300 mg/kg by immunoassay field tests. There has been no impact to the groundwater from metals or explosives at this site. No remediation of the groundwater is recommended.

Based on information obtained in 2000 concerning disposal of explosives at this site, additional investigation was initiated. This resulted in discovery of RDX at 70,000 ppm. Excavation, bioremediation through window composting, and on-site treatment were completed in May 2003 as the remedy for the TPH and explosives contamination. Closure was approved on June 29, 2012.

12B.7.25 Building 70 Pit/Landfill (HWAAP-I08)

HWAAP-I08 is an open pit landfill, located south of Building 70, which is approximately 45x110x15 feet in size. The period of use and activities at the site are not well documented, however, petroleum products were reportedly disposed in the pit. PCBs are also a chemical of concern because of the close proximity to an electrical substation.

A Remedial Investigation in 1994 included 0.9 acres of GPR on a 10-foot grid to assess the potential presence of buried objects and 3 surface and 5 near surface soil samples collected from within the pit. No buried objects were found during the GPR survey. Up to 1,200 mg/kg of TPH-d and less than 50 mg/kg of BTEX were detected in the soil samples. The affected soils are primarily within the open pit and to a depth of at least 25 feet bgs.

Groundwater sampling down gradient of the site indicate that the affected soils have not affected the groundwater in the vicinity. Therefore, no groundwater remediation is necessary. Closure was approved on May 8, 2012.

12B.7.26 Building 49 10 Pits (HWAAP-I09 & I10)

HWAAP-I09 and I10 are two open pits near an area used to assemble ship mines, bombs and torpedo warheads. The period of operations of the pits is not documented. Wastewater and wash down water were reportedly discharged to these pits. A summary of sites prepared by the Nevada Division of Environmental Protection indicates that the site may contain waste paint, solvents and creosote. Investigation in 1994 included 10 soil gas samples, 6 surface soil samples and 15 subsurface soil samples collected from 3 borings to a depth of 56 feet. Three

CPT soundings were advanced for a total of 106 feet to define the optimum depth to collect subsurface soils. The surface soil samples contained up to 1,260 mg/kg of TPH-d with elevated concentrations of metals (130 mg/kg of lead).

Groundwater sampling showed hits of VOCs. Sewer line breakage was thought to be the source but, in 1999, sewer lines were investigated, and the findings eliminated potential release points. Remedial design 2000 included soil gas surveys to define the groundwater plume and development of site-specific natural attenuation criteria. Two additional wells were installed in 2002 to evaluate the TCE in groundwater. TCE was found above the action levels, at 270 ppb. Investigation of the TCE contamination in groundwater has continued and currently there are 16 monitoring wells at the site. In July 2017 the Army submitted a Corrective Measures Study for SWMU I09/10. The recommended alternative to address TCA-contaminated groundwater is monitored natural attenuation with land use controls. In May 2019, the Army submitted a Corrective Measures Implementation Plan to design, operate, and monitor the performance of the selected corrective measure.

12B.7.27 Old Bomb Open Burning Pit (HWAAP-I22)

HWAAP-I22 is an open burn burial pit located at the base of Rocket Mountain. There is no written history on this site and HWAD personnel were not able to determine possible dates for use of this site. The site is littered with ordnance. A 1989 investigation included one test pit and soil sampling. Evidence of elevated concentrations of metals and explosives were found. Long-term monitoring started in 1997 and will continue.

Groundwater monitoring for pesticides, volatile organic compounds, and explosives will continue in accordance with the approved base-wide groundwater monitoring plan. Over the years, the monitoring frequency has been reduced and the analyte suite has been refined. No detects have ever been found.

This site was originally included in the IRP, but no progress on restoration has been made due to the dangers of UXO and inaccessibility to the site since Old Bomb is an active range. HWAAP-I22 is an uncharacterized site that will be addressed when Old Bomb is closed. HWAAP-I22 has been incorporated into the MMRP. Corrective action requirements will be assessed in five-year reviews based on groundwater results and change in range status.

12B.7.28 Old Bomb/Rocket Metal Landfill (HWAAP-I23)

HWAAP-I23 is an abandoned disposal site that covers about 15 acres. There is no written history on this site but interviews with HWAD personnel indicate that this was a dumping ground for miscellaneous metal debris around World War II. A 1989 investigation was completed by International Technology Corporation and included geophysical surveying, installing and sampling two groundwater monitoring wells, four test pits, and soil sampling. The two wells are located down gradient of I23 and the depth to ground in this area is approximately 96 feet bgs. Elevated levels of metals were detected in the soils. No explosives were detected in the groundwater, but arsenic was detected at a concentration ranging from 0.002 to 0.02 µg/l. Airborne ground penetrating radar (AGPR) surveying at nine targets spanning an area of 26 acres was conducted in 1994. Long-term monitoring started in 1997 and will continue.

Groundwater monitoring for pesticides, volatile organic compounds, and explosives will continue in accordance with the approved base-wide groundwater monitoring plan. Over the years, the monitoring frequency has been reduced and the analyte suite has been refined. No detects have ever been found.

This site was originally included in the IRP, but no progress on restoration has been made due to the dangers of UXO and inaccessibility to the site since Old Bomb is an active range. HWAAP-I22 is an uncharacterized site that will be addressed when Old Bomb is closed. HWAAP-I22 has been incorporated into the MMRP. Corrective action requirements will be assessed in five-year reviews based on groundwater results and change in range status.

12B.7.29 Building 70 Diesel Leak (HWAAP-J03)

HWAAP-J03 is an aboveground storage tank (AST) site located approximately 2 miles east of the HWAD gate on US Highway 95. Two 100,000-gallon ASTs were installed in the early 1940s to provide diesel fuel for the Building 70 and other sites. Fuel leakage from the ASTs occurred for an unknown length of time. In 1991 over 34,000 cubic yards of soil were removed between the two tanks creating an excavation pit that measured about 80 feet by 110 feet by 35 feet. The depth to groundwater at Building 70 is approximately 113 feet below ground surface (bgs). Investigations in 1994 included line locating, drilling, sampling, installing soil-gas monitoring probes and constructing a groundwater monitoring well. Hollow-stem auger drilling included six 50-foot borings and three borings to groundwater. All of the 50-foot borings were installed with soil-gas monitoring probes, making for a total of 18 probes installed. One groundwater monitoring well was installed in the down gradient direction. Soil sampling included chemical and geotechnical characterization. Soil contamination of TPH at an elevated level of over 40,000 mg/kg was found in the excavation pit. Groundwater contamination at a level of 11 mg/L was found. 66 subsurface samples were analyzed using milli-pore immunoassay screening. Majority of subsurface samples analyzed contained non-detectable concentrations of TPH. The highest level of TPH-D measured in the subsurface soils was found at 91 mg/kg at a depth of 29.5 feet.

A pilot study for active and then passive bioremediation (bioventing) was initiated in July 1997. The excavation was filled with petroleum-contaminated soil from all the other sites at the installation, eliminating the need to treat the soil at each site. The soil filled the excavation to within two feet of the top. Approximately 6,000 cubic yards of soil has undergone bioventing treatment for more than 8 years. Long-term monitoring of groundwater was initiated in 1997. Closure was approved on July 16, 2009.

12B.7.30 Building 103-5 Landfill (HWAAP-J29)

HWAAP-J29 is an area 800 feet by 400 feet that appears to have been used for disposal by open burning and burial. There is surface debris scattered around the area that consists mostly of charred wood, nails, packing material and some munitions related items. Operations and activities at the site commenced in the 1940's; however, the periods of operations at the site are not well documented.

A Remedial Investigation in 1994 included 22.3 acres of GPR and magnetometry surveys within 25 acres of airborne GPR. These geophysical surveys delineated numerous anomalies that appear to be buried metallic and non-metallic debris. Fourteen soil gas samples were

collected with non-detect result. Fifteen surface soil samples found low concentrations of metals, except lead detected up to 130 mg/kg, and no detectable concentrations of explosives, TPH-d or VOCs with one exception. One surface sample detected concentrations of explosive up to 17,000 mg/kg, TPH up to 1,800 mg/kg, low levels of VOCs and metals. Five CPT soundings were drilled to depths up to 40 feet to determine the optimal depths to collect subsurface soil samples. Five subsurface soil samples were collected and did not contain any detectable concentrations of explosives. Two samples contained TPH as gasoline less than 0.18 mg/kg, diesel less than 0.96 mg/kg, motor oil less than 0.44 mg/kg and heavy oil less than 0.33 mg/kg.

No contaminants of concern have been detected in samples from groundwater monitoring wells at this location. This site was consolidated with HWAAP-B29 for bioremediation of explosives-contaminated soils by wind row composting. A no further action determination was granted for the site on June 26, 2012.

12B.7.31 Building 101-25 Underground Storage Tanks (HWAAP-K03a)

HWAAP-K03a is a former underground storage tank (UST) site located southeast of Building 94 on 3rd Avenue North. Seven USTs were in operation at this site from about 1936 to 1992 and leaked petroleum for a number of years. One tank site is considered closed. Three 10,000 gallon and three 12,000-gallon USTs were removed in 1991. The highest level of TPH diesel found in the soil was 27,000 mg/kg at a depth of 14 feet. Depth to groundwater at the site is approximately 100 feet bgs.

An enhanced bioventing unit was installed in 1998 and ceased operation in FY04. Closure was approved on July 16, 2009.

12B.7.32 Building 103-6 Underground Storage Tanks (HWAAP-K03b)

HWAAP-K03b is a former underground storage tank (UST) site located at the intersection of Fuze Road and Salvage Road. Three USTs were in operation at the site from about 1942 to 1992 and leaked petroleum for a number of years. When two USTs were removed in 1991, the highest level of TPH diesel found in the soil was over 48,000 mg/kg at a depth of about 15 feet. Elevated levels of over 73,000 mg/kg of TPH diesel at depths of about 17 feet were also found when a third UST was removed in 1993. Groundwater at the site is estimated to be about 100 feet bgs. An enhanced bioventing unit was installed in 1998 and ceased operation in FY04.

In 2010, an additional investigation was completed at the site. The investigation included five soil borings, two of which were advanced to the groundwater table and completed as temporary monitoring wells. No petroleum contamination was detected in groundwater samples. Closure was approved on April 21, 2011.

12B.7.33 Building 13 Underground Storage Tanks (HWAAP-K03d)

HWAAP-K03D is a former underground storage tank (UST) site located approximately one quarter mile west of the main gate to HWAD. Five USTs were in operation from about 1936 to 1993 and leaked petroleum for a number of years. Three 21,000-gallon USTs were removed in 1991 and the highest level of TPH diesel detected in the soil was over 44,000 mg/kg at a depth of about 15 feet. Free floating product in the dirt cradle was also observed. Further a

Remedial Investigation in 1992 detected 9,000 mg/kg of TPH diesel in the soil at a depth of 25 feet bgs. Also, a concentration of 130 mg/kg TPH-d was reported in the sample collected from the bottom of boring at 70' bgs. The estimated depth to groundwater below Building 13 is 100 feet bgs. A fourth UST was removed in 1993 but no sampling was done at that time.

A pilot test showed bioremediation (bioventing) to be effective. A bioventing system was installed in 1996 and was left in place and turned over to the facility for continued operation. Closure was approved on July 16, 2009.

12B.7.34 Building 117-3 Underground Storage Tanks (HWAAP-K05)

HWAAP-K05 is a former UST site. In December 1984 and September 1993 there were reported releases of diesel fuel #2 (DF-2) from the 117-3 UST system. The groundwater at the time of the original release was at 12 feet bgs and had dropped to 15-17 feet bgs by the second release. The first release was approximately 1,300 gallons resulting in a Finding of Alleged Violation (FOAV) and Order from NDEP on December 17, 1984.

AEHA conducted a geohydrologic study to delineate the contamination in 1994. There are two plumes, one approximately 5,000 square feet of groundwater and 7,500 square feet of soil contamination and the other approximately 375 square feet of groundwater and 1,500 square feet of soil. The approximate volume of DF-2 fuel I the subsurface has been estimated at 4,000 gallons (large plume) and 400 gallons (small plume). The results of sampling indicate that two soil samples exceeded the State of Nevada soil action level of 100 mg/kg and two groundwater samples exceeded the State of Nevada free product action level of ½ inch.

In 1996, enhanced intrinsic bioremediation (bioventing) was selected to treat the plumes and soil. The system was installed in 1996. Closure was approved on July 16, 2009.

12B.7.35 DDT Burial Site (Old Bomb) (HWAAP-K07)

HWAAP-K07 is located in the Old Bomb area, an active range, south of both the main cantonment area, permanent military area, and the town of Hawthorne. During the 1970s, a large quantity of containerized pesticides (DDT) was reportedly buried in this area. The exact location is unknown; however, a former employee has indicated the general area in which the containers might be found. The depth and quantity of material buried is unknown. A shallow monitoring well (HWAAP-02, depth 40 to 60 feet) is located north and down gradient of the site. Access to the site is restricted to authorized personnel only.

Groundwater monitoring for pesticides, volatile organic compounds, and explosives will continue in accordance with the approved base-wide groundwater monitoring plan. Over the years, the monitoring frequency has been reduced and the analyte suite has been refined. No detects have ever been found.

This site was originally included in the IRP, but no progress on restoration could be made because of the dangers of UXO and inaccessibility to the site. Old Bomb is an active range. HWAAP-K07 is an uncharacterized site that will be addressed when Old Bomb is closed. HWAAP-K07 has been incorporated into the MMRP. Corrective action requirements will be assessed in five-year reviews based on groundwater results and change in range status.

12B.7.36 Buried Paint (HWAAP-K10)

HWAAP-K10 is located on the southwest corner of the installation municipal landfill. Numerous 5-gallon containers of paint (approximately 200 gallons) were unearthed during the recent expansion of the landfill. The unearthed items are believed to have been buried sometime during the 1960s or earlier. Access to the site is restricted. The containers of paint were removed in FY05 and soil samples were taken. In addition to the paint containers, old pieces of hotmelt, a thermoplastic adhesive, were found and relocated to the primary landfill cells. A Closure Decision Document was approved by the NDEP in February 2012.

12B.7.37 Waste Lumber Open Burn Pit (HWAAP-H02)

SWMU H02 is located on the western boundary of the North Mag area, northwest of the HWAD main gate (Figure 2.4) and consists of two unlined, V-shaped, open trenches located within the salvage yard adjacent to HWAD's Property Disposal Office. The site was in use from approximately 1970 to 1996, when HWAD reportedly burned unsalable non-pentachlorophenol treated wood, scrap wire and metal, and other products in the trenches. The fire department, which also used the burn site for training, reportedly ignited wood scraps with fuel oil products.

In 2011, a RCRA Facility Investigation was conducted to investigate surface/subsurface soil associated with the two trenches and one soil stockpile at the site to determine the nature and extent of impact. Samples were analyzed for total petroleum hydrocarbons-diesel, RCRA metals, polychlorinated biphenyls, semi-volatile organic compounds, volatile organic compounds, and dioxins/furans. Dioxin/furans were detected above the EPA industrial RSLs and toxic equivalency (TEQ) in six soil samples. The affected soil is limited to the western end of the southern trench. Excavation and off-site disposal to remove dioxin/furan-impacted soil from the southern open trench, and removal of large metal debris and wood pieces from the surface of the two trenches was recommended. Transportation of the soil stockpile from the current location on site to the test pits located in the eastern end of the southern trench was also recommended.

A 2012 Remedial Action Decision Document, approved by NDEP, selected a remedy for SWMU H02. This included excavation and off-site disposal to remove dioxin/furan soil and debris from the western end of the southern trench above the risk-based screening levels, which consisted of the EPA RSLs for industrial land use and the TEQ. The corrective measures also included removal of large metal/wood debris from the surface of the two trenches; and replacement of the existing stockpile, in the eastern end of the southern trench. The existing stockpile will be replaced before both trenches are backfilled to the existing grade. The remedial action will begin during the summer of 2013.

12B.7.38 Building 101-42 Catchment Pit (HWAAP-I15)

The catchment pits at SWMU I15 were reportedly in operation from 1940 to the early-1970s and received wastewater containing 2,4,6-trinitrotoluene (TNT) and 1,3,5-trinitroperhydro-1,3,5-triazine (RDX). The source and quantity of wastewater discharged to the catchment pits are not documented, although Installation personnel indicated that all pits in the 101 Production Area were continuously full during this period of operation and that the wastewater may have contained metal munitions components. TNT-stained soils were identified during site

inspections conducted in 1988, 1992, 1994, and 1997. This staining was found several feet up the sidewalls and at depths of 3 to 6 inches over most of the floor of the lower catchment pit. No such staining was identified in the upper catchment pit. Based on the history of operations in Buildings 101-41 and 101-42, solvents were identified as a cleaning fluid used near this SWMU.

Remedial investigation activities conducted in 1994 and 1997 identified only explosives, including TNT and RDX, in excess of proposed closure goals (PCGs) in place at the time at SWMU I15. The explosive contamination was identified only within the soil of the lower catchment pit. In April 1998, 940 cubic yards of explosive-contaminated soil were removed from SWMU I15 and treated in a compost windrow as part of a bioremediation field-scale pilot study. The excavated area was backfilled with treated compost and covered with clean soil. The site was closed in 2000 with the restriction that no structure be constructed on the site (USACE, 2000). The site remained closed until August 2008 when investigation activities at the adjacent site (SWMU B20) detected concentrations of trichloroethene (TCE) in groundwater greater than the MCL of 5 μg/L, with the highest concentrations located closest to SWMU I15. The source of the TCE appeared to be originating from the buildings within SWMU I15 and likely related to the activities that were conducted in the past at SWMU I15; therefore, the NDEP closed SWMU B20 to Industrial standards and re-opened SWMU I15 to investigate the TCE-impacted groundwater.

The investigation area was expanded to include the radiographic facility (Building 101-48) and the surrounding area located north of SWMU I15. As a result, a potential source area evaluation was conducted at Building 101-48 and the surrounding area in June 2012. The evaluation indicated that Building 101-48 was built in 1969 and was used to examine explosive munitions for defects until operations were discontinued in the mid-1990s. Bulk chemicals used and stored at Building 101-48 reportedly included only those chemicals used in the x-ray film development process, and the x-ray film development process did not require the use of solvents. Releases of contaminants associated with the groundwater plume were not identified or suggested during interviews conducted with former site personnel in 2012. Further investigation and actions are required.

In September 2013, a Corrective Measures Study was conducted to determine the best alternative for treating TCE and RDX in groundwater. The remedial alternative recommended for soil vapor was land use controls. For groundwater, enhanced reductive biodegradation with groundwater recirculation and monitored natural attenuation and land use controls was the remedial alternative recommended. Full-scale corrective action and prove-out was completed at the end of 2015. Quarterly performance monitoring and annual sampling has been conducted since then with September 2016 and July 2017 additional injection/extraction events. The January 2019 performance monitoring data indicates that since the start of treatment, TCE concentrations have been reduced from between 86.8% to 99.5% in performance monitoring wells IRPMW94, IRPMW96, IRPMW127, IRPMW128, and IRPMW129. In IRPMW130, TCE concentrations showed a 14.9% increase. Since the start of treatment, the RDX concentrations have been reduced from between 69.0% to 99.9% in the six performance monitoring wells. IRPMW94, IRPMW96, IRPMW127, IRPMW128, and IRPMW129 showed total chlorinated ethene reductions from 52.0% to 94.3%. IRPMW130

showed a 63.8% increase in the total chlorinated ethenes. Remediation is still ongoing at the unit.

12B.8 COMPLIANCE SCHEDULE

Completion of the corrective actions for the SWMUs identified in this section of the Permit is covered under the IRP, with regulatory oversight provided by the BCA DOD/Remediation Branch.

When warranted, the Permittee shall perform the following task(s) by the listed due date(s):

	Task	Date Due
1	*Reserved*	

13. SUMMARY

The Permittee is required to make notification at least 180 days prior to initiating closure of a unit. This section of the Permit pertains to post-closure care required of the Permittee in the event that clean closure is not obtained for a unit. This is not expected since operating and closure practices are designed to allow for clean closure at each unit. However, a contingent post-closure plan is provided in Permit Application Section O for the Old Bomb open burn unit. Among other elements, the contingent post-closure plan consists of maintaining existing fencing around the unit and submitting a detailed post-closure plan to the Division when it is determined that it is not possible for the Permittee to clean close the unit. At such time the Permittee shall be responsible for complying with 40CFR 264.112 and once the detailed post-closure plan is reviewed and approved by the Division, the Permittee shall be required to follow the approved post-closure plan.

13.1 UNIT IDENTIFICATION

Clean closure is currently expected for all units at the Main Base facility. However, if clean closure cannot be achieved for the Old Bomb open burn unit, the Permittee shall provide post-closure care for the Old Bomb unit pursuant to 40 CFR 264.112, Application Section O, and the approved post-closure care plan.

13.2 POST-CLOSURE PROCEDURES AND USE OF PROPERTY

13.2.1 The Permittee shall conduct post-closure care for each hazardous waste management unit listed in Permit Condition 13.1 above, to begin after completion of closure of the unit and continue for 30 years after closure of the last unit listed above. The 30-year post-closure care period may be shortened upon application and demonstration approved by the Director that the facility is secure, or may be extended by the Director if he finds this is necessary to protect human health and the environment. *[40 CFR 264.117(a)]*

13.2.2 The Permittee shall control wind dispersal of hazardous constituents as required under 40 CFR 264.273(f).

13.2.3 The Permittee shall comply with all security requirements by maintaining the fence as specified in Section J of the Permit Application. *[40 CFR 264.117(b)]*

13.2.4 If the Director makes a determination that post-closure activities are to be performed for the unit, a detailed post-closure plan shall be prepared and submitted to the Director within 90 days of the effective date of such determination. All post-closure care activities must be conducted in accordance with the provisions of the Director-approved detailed post-closure plan.
[40 CFR 264.117(d) and 264.118(b)]

13.3 INSPECTIONS

13.3.1 The Permittee shall inspect the fence at least monthly and inspect all components, structures and equipment at the site in accordance with an Inspection Schedule include in the Post-Closure Plan approved under Permit Condition 13.2.4. *[40 CFR 264.117(a)(1)(ii)]*

13.4 POST-CLOSURE PERMIT MODIFICATIONS

The Permittee must request a permit modification to authorize a change in the Post-Closure Plan approved under Permit Condition 13.2.4. This request must be in accordance with applicable requirements of Permit Condition 1.2 and include a copy of the proposed amended Post-Closure Plan for approval by the Director. The Permittee shall request a permit modification whenever changes in operating plans or facility design affect the approved Post-Closure Plan, there is a change in the expected year of final closure, or other events occur during the active life of the facility that affect the approved Post-Closure Plan. The Permittee must submit a written request for a permit modification at least sixty (60) days prior to the proposed change in facility design or operation, or no later than sixty (60) days after an unexpected event has occurred which has affected the Post-Closure Plan. *[40 CFR 264.118(d)]*

13.5 COMPLIANCE SCHEDULE

The Permittee shall perform the following task(s) by the listed due date(s):

	Task	Date Due
1	*Reserved*	*Reserved*

14. SUMMARY

The permitted facility is owned by the Federal Government and, as stated in 40 CFR 264.140(c), is not required to comply with the Financial Assurance requirements, nor maintain financial assurance mechanism(s) to cover Closure Costs, nor obtain an Insurance Plan to cover Sudden Liability for the facility. *[40 CFR 264.140(c)]*

14.1 APPLICABILITY

As described in 40 CFR 264.140(c), States and the Federal government are exempt from the requirements of 40 CFR 264 Subpart H (Financial Requirements). Since the Permittee is a federally owned facility, it is exempt from the Financial Requirements.

RCRA Permit Renewal Application, Part A (*attached*)

United States Environmental Protection Agency
RCRA SUBTITLE C SITE IDENTIFICATION FORM

1. Reason for Submittal (Select only one.)

☐	Obtaining or updating an EPA ID number for on-going regulated activities (Items 10-17 below) that will continue for a period of time.
☐	Submitting as a component of the Hazardous Waste Report for _____ (Reporting Year)
	☐ Site was a TSD facility, a reverse distributor, and/or generator of ≥ 1,000 kg of non-acute hazardous waste, > 1 kg of acute hazardous waste, or > 100 kg of acute hazardous waste spill cleanup in **one or more months of the reporting year** (or State equivalent LQG regulations)
☐	Notifying that regulated activity is no longer occurring at this Site
☐	Obtaining or updating an EPA ID number for conducting Electronic Manifest Broker activities
☑	Submitting a new or revised Part A (permit) Form

2. Site EPA ID Number

N	V	1	2	1	0	0	9	0	0	0	6

3. Site Name

Hawthorne Army Depot

4. Site Location Address

Street Address: 1 South Maine Ave		
City, Town, or Village: Hawthorne		County: Mineral
State: NV	Country: USA	Zip Code: 89415
Latitude: 38* 32' 20"N	Longitude: 118* 39' 42" W	☐ Use Lat/Long as Primary Address

5. Site Mailing Address ☑ Same as Location Street Address

Street Address: 1 South Maine Ave		
City, Town, or Village: Hawthorne		
State: NV	Country: USA	Zip Code: 89415

6. Site Land Type

☐ Private ☐ County ☐ District ☑ Federal ☐ Tribal ☐ Municipal ☐ State ☐ Other

7. North American Industry Classification System (NAICS) Code(s) for the Site (at least 5-digit codes)

A. (Primary)	928110	C.	332995
B.	493190	D.	

8. Site Contact Information

☐ Same as Location Address

First Name **Kevin**	MI	Last Name **Spala**
Title **Environmental Compliance Officer**		
Street Address **1 South Maine Ave, Building 4**		
City, Town, or Village **Hawthorne**		
State **NV**	Country **USA**	Zip Code **89415**
Email **kevin.spala@errg.com**		
Phone **(925) 588-5100**	Ext	Fax

9. Legal Owner and Operator of the Site

A. Name of Site's Legal Owner

☑ Same as Location Address

Full Name **U.S. Department of the Army**	Date Became Owner (mm/dd/yyyy) **10/27/1926**

Owner Type: ☐ Private ☐ County ☐ District ☑ Federal ☐ Tribal ☐ Municipal ☐ State ☐ Other

Street Address **1 South Maine Ave**		
City, Town, or Village **Hawthorne**		
State **NV**	Country **USA**	Zip Code **89415**
Email		
Phone	Ext	Fax
Comments		

B. Name of Site's Legal Operator

☐ Same as Location Address

Full Name **Amentum Services, Inc. (Sole Member of DynCorp International LLC)**	Date Became Operator (mm/dd/yyyy) **7/1/2022**

Operator Type: ☑ Private ☐ County ☐ District ☐ Federal ☐ Tribal ☐ Municipal ☐ State ☐ Other

Street Address **1 South Maine Ave, Building 4**		
City, Town, or Village **Hawthorne**		
State **NV**	Country **USA**	Zip Code **89415**
Email **rob.ralston@amentum.com**		
Phone **(435) 830-3771**	Ext	Fax
Comments **Robert is the program manager and contact for the Operator.**		

10. Type of Regulated Waste Activity (at your site)

Mark "Yes" or "No" for all current activities (as of the date submitting the form); complete any additional boxes as instructed.

A. Hazardous Waste Activities

☑ Y ☐ N	1. Generator of Hazardous Waste—If "Yes", mark only one of the following—a, b, c		
	☑	a. LQG	-Generates, in any calendar month, 1,000 kg/mo (2,200 lb/mo) or more of non-acute hazardous waste (includes quantities imported by importer site); or - Generates, in any calendar month, or accumulates at any time, more than 1 kg/mo (2.2 lb/mo) of acute hazardous waste; or - Generates, in any calendar month or accumulates at any time, more than 100 kg/mo (220 lb/mo) of acute hazardous spill cleanup material.
	☐	b. SQG	100 to 1,000 kg/mo (220-2,200 lb/mo) of non-acute hazardous waste and no more than 1 kg (2.2 lb) of acute hazardous waste and no more than 100 kg (220 lb) of any acute hazardous spill cleanup material.
	☐	c. VSQG	Less than or equal to 100 kg/mo (220 lb/mo) of non-acute hazardous waste.
☐ Y ☑ N	2. Short-Term Generator (generates from a short-term or one-time event and not from on-going processes). If "Yes", provide an explanation in the Comments section. *Note: If "Yes", you MUST indicate that you are a Generator of Hazardous Waste in Item 10.A.1 above.*		
☑ Y ☐ N	3. Treater, Storer or Disposer of Hazardous Waste—Note: Part B of a hazardous waste permit is required for these activities.		
☐ Y ☑ N	4. Receives Hazardous Waste from Off-site		
☐ Y ☑ N	5 Recycler of Hazardous Waste		
	☐	a. Recycler who stores prior to recycling	
	☐	b. Recycler who does not store prior to recycling	
☐ Y ☑ N	6. Exempt Boiler and/or Industrial Furnace—If "Yes", mark all that apply.		
	☐	a. Small Quantity On-site Burner Exemption	
	☐	b. Smelting, Melting, and Refining Furnace Exemption	

B. Waste Codes for Federally Regulated Hazardous Wastes. Please list the waste codes of the Federal hazardous wastes handled at your site. List them in the order they are presented in the regulations (e.g. D001, D003, F007, U112). Use an additional page if more spaces are needed.

D001	D006	D011	D035	F005	P022	U105
D002	D007	D018	D036	K044	P098	U109
D003	D008	D022	F002	K045	U002	U117
D004	D009	D027	F003	K047	U044	U121
D005	D010	D030	F004	P006	U080	U151

C. Waste Codes for State Regulated (non-Federal) Hazardous Wastes. Please list the waste codes of the State hazardous wastes handled at your site. List them in the order they are presented in the regulations. Use an additional page if more spaces are needed.

10. Type of Regulated Waste Activity (at your site)

Mark "Yes" or "No" for all current activities (as of the date submitting the form); complete any additional boxes as instructed.

A. Hazardous Waste Activities

☐Y ☐N	1. Generator of Hazardous Waste—If "Yes", mark only one of the following—a, b, c	
☐	a. LQG	-Generates, in any calendar month, 1,000 kg/mo (2,200 lb/mo) or more of non-acute hazardous waste (includes quantities imported by importer site); or - Generates, in any calendar month, or accumulates at any time, more than 1 kg/mo (2.2 lb/mo) of acute hazardous waste; or - Generates, in any calendar month or accumulates at any time, more than 100 kg/mo (220 lb/mo) of acute hazardous spill cleanup material.
☐	b. SQG	100 to 1,000 kg/mo (220-2,200 lb/mo) of non-acute hazardous waste and no more than 1 kg (2.2 lb) of acute hazardous waste and no more than 100 kg (220 lb) of any acute hazardous spill cleanup material.
☐	c. VSQG	Less than or equal to 100 kg/mo (220 lb/mo) of non-acute hazardous waste.
☐Y ☐N	2. Short-Term Generator (generates from a short-term or one-time event and not from on-going processes). If "Yes", provide an explanation in the Comments section. *Note: If "Yes", you MUST indicate that you are a Generator of Hazardous Waste in Item 10.A.1 above.*	
☐Y ☐N	3. Treater, Storer or Disposer of Hazardous Waste—Note: Part B of a hazardous waste permit is required for these activities.	
☐Y ☐N	4. Receives Hazardous Waste from Off-site	
☐Y ☐N	5 Recycler of Hazardous Waste	
☐	a. Recycler who stores prior to recycling	
☐	b. Recycler who does not store prior to recycling	
☐Y ☐N	6. Exempt Boiler and/or Industrial Furnace—If "Yes", mark all that apply.	
☐	a. Small Quantity On-site Burner Exemption	
☐	b. Smelting, Melting, and Refining Furnace Exemption	

B. Waste Codes for Federally Regulated Hazardous Wastes. Please list the waste codes of the Federal hazardous wastes handled at your site. List them in the order they are presented in the regulations (e.g. D001, D003, F007, U112). Use an additional page if more spaces are needed.

U154	U228					
U159	U239					
U165						
U220						
U226						

C. Waste Codes for State Regulated (non-Federal) Hazardous Wastes. Please list the waste codes of the State hazardous wastes handled at your site. List them in the order they are presented in the regulations. Use an additional page if more spaces are needed.

11. Additional Regulated Waste Activities (NOTE: Refer to your State regulations to determine if a separate permit is required.)

A. Other Waste Activities

☑ Y ☐ N	1. Transporter of Hazardous Waste—If "Yes", mark all that apply.
☑	a. Transporter
☐	b. Transfer Facility (at your site)
☐ Y ☑ N	2. Underground Injection Control
☐ Y ☑ N	3. United States Importer of Hazardous Waste
☐ Y ☑ N	4. Recognized Trader—If "Yes", mark all that apply.
☐	a. Importer
☐	b. Exporter
☐ Y ☑ N	5. Importer/Exporter of Spent Lead-Acid Batteries (SLABs) under 40 CFR 266 Subpart G—If "Yes", mark all that apply.
☐	a. Importer
☐	b. Exporter

B. Universal Waste Activities

☑ Y ☐ N	1. Large Quantity Handler of Universal Waste (you accumulate 5,000 kg or more) - If "Yes" mark all that apply. Note: Refer to your State regulations to determine what is regulated.
☑	a. Batteries
☐	b. Pesticides
☑	c. Mercury containing equipment
☑	d. Lamps
☐	e. Aerosol Cans
☐	f. Other (specify) _____
☐	g. Other (specify) _____
☐ Y ☑ N	2. Destination Facility for Universal Waste Note: A hazardous waste permit may be required for this activity.

C. Used Oil Activities

☐ Y ☑ N	1. Used Oil Transporter—If "Yes", mark all that apply.
☐	a. Transporter
☐	b. Transfer Facility (at your site)
☐ Y ☑ N	2. Used Oil Processor and/or Re-refiner—If "Yes", mark all that apply.
☐	a. Processor
☐	b. Re-refiner
☐ Y ☑ N	3. Off-Specification Used Oil Burner
☐ Y ☑ N	4. Used Oil Fuel Marketer—If "Yes", mark all that apply.
☐	a. Marketer Who Directs Shipment of Off-Specification Used Oil to Off-Specification Used Oil Burner
☐	b. Marketer Who First Claims the Used Oil Meets the Specifications

D. Pharmaceutical Activities

☑ Y ☐ N	1. Operating under 40 CFR Part 266, Subpart P for the management of hazardous waste pharmaceuticals—if "Yes", mark only one. Note: See the item-by-item instructions for definitions of healthcare facility and reverse distributor.
☑	a. Healthcare Facility
☐	b. Reverse Distributor
☐ Y ☑ N	2. Withdrawing from operating under 40 CFR Part 266, Subpart P for the management of hazardous waste pharmaceuticals. Note: You may only withdraw if you are a healthcare facility that is a VSQG for all of your hazardous waste, including hazardous waste pharmaceuticals.

12. Eligible Academic Entities with Laboratories—Notification for opting into or withdrawing from managing laboratory hazardous wastes pursuant to 40 CFR Part 262, Subpart K.

☐ Y ☑ N	A. Opting into or currently operating under 40 CFR Part 262, Subpart K for the management of hazardous wastes in laboratories— If "Yes", mark all that apply. Note: See the item-by-item instructions for definitions of types of eligible academic entities.
☐	1. College or University
☐	2. Teaching Hospital that is owned by or has a formal written affiliation with a college or university
☐	3. Non-profit Institute that is owned by or has a formal written affiliation with a college or university
☐ Y ☑ N	B. Withdrawing from 40 CFR Part 262, Subpart K for the management of hazardous wastes in laboratories.

13. Episodic Generation

☐ Y ☑ N	Are you an SQG or VSQG generating hazardous waste from a planned or unplanned episodic event, lasting no more than 60 days, that moves you to a higher generator category. If "Yes", you must fill out the Addendum for Episodic Generator.

14. LQG Consolidation of VSQG Hazardous Waste

☐ Y ☑ N	Are you an LQG notifying of consolidating VSQG Hazardous Waste Under the Control of the Same Person pursuant to 40 CFR 262.17(f)? If "Yes", you must fill out the Addendum for LQG Consolidation of VSQG hazardous waste.

15. Notification of LQG Site Closure for a Central Accumulation Area (CAA) (optional) OR Entire Facility (required)

☐ Y ☑ N	LQG Site Closure of a Central Accumulation Area (CAA) or Entire Facility.
	A. ☐ Central Accumulation Area (CAA) or ☐ Entire Facility
	B. Expected closure date: _____ mm/dd/yyyy
	C. Requesting new closure date: _____ mm/dd/yyyy
	D. Date closed : _____ mm/dd/yyyy ☐ 1. In compliance with the closure performance standards 40 CFR 262.17(a)(8) ☐ 2. Not in compliance with the closure performance standards 40 CFR 262.17(a)(8)

16. Notification of Hazardous Secondary Material (HSM) Activity

☐ Y ☑ N	Are you notifying under 40 CFR 260.42 that you will begin managing, are managing, or will stop managing hazardous secondary material under 40 CFR 260.30, 40 CFR 261.4(a)(23), (24), (25), or (27)? If "Yes", you must fill out the Addendum to the Site Identification Form for Managing Hazardous Secondary Material.

17. Electronic Manifest Broker

☐ Y ☑ N	Are you notifying as a person, as defined in 40 CFR 260.10, electing to use the EPA electronic manifest system to obtain, complete, and transmit an electronic manifest under a contractual relationship with a hazardous waste generator?

18. Comments (include item number for each comment)

Item #1 Purpose:
Hawthorne Army Depot is a Government Owned Contractor Operated (GOCO) installation. This RCRA Subtitle C Site Identification form is being submitted to update the HWAD operator information.

Item #10B:
Additional waste codes on Page 7 of 7.

Item # 9b: On 20 November 2020, DynCorp International LLC (DI) was acquired by Amentum Services Inc. and is now an Amentum company

19. Certification I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations. **Note: For the RCRA Hazardous Waste Part A permit Application, all owners and operators must sign (see 40 CFR 270.10(b) and 270.11).**

Signature of legal owner, operator or authorized representative	Date (mm/dd/yyyy)
	05162022
Printed Name (First, Middle Initial Last) **Larry M. Cruz**	Title **Commander's Representative**
Email larry.m.cruz.civ@army.mil	

Signature of legal owner, operator or authorized representative	Date (mm/dd/yyyy)
	03/15/2022
Printed Name (First, Middle Initial Last) **Robert Ralston**	Title **Program Manager**
Email **rob.ralston@amentum.com**	

United States Environmental Protection Agency

HAZARDOUS WASTE PERMIT PART A FORM

1. Facility Permit Contact

First Name	MI	Last Name
Title		
Email		
Phone	Ext	Fax

2. Facility Permit Contact Mailing Address

Street Address		
City, Town, or Village		
State	Country	Zip Code

3. Facility Existence Date (mm/dd/yyyy)

4. Other Environmental Permits

A. Permit Type	B. Permit Number	C. Description
N	NEV200035 16	PODS Waste Water
N	NVR050000	General Stormwater Discharge Permit
E	MI-035-7-1 2C	Drinking Water System (State)
E	MI-035-7-TSP I -	12C Black Beauty Surface H2O Treatment

5. Nature of Business

6. Process Codes and Design Capacities

Line Number		A. Process Code			B. Process Design Capacity		C. Process Total Number of Units	D. Unit Name
					(1) Amount	(2) Unit of Measure		

7. Description of Hazardous Wastes (Enter codes for Items 7.A, 7.C and 7.D(1))

Line No.		A. EPA Hazardous Waste No.				B. Estimated Annual Qty of Waste	C. Unit of Measure	D. Processes								
								(1) Process Codes								(2) Process Description (if code is not entered in 7.D1))
1	2	D	0	1	8	1,000	P	S	0	1						
1	3	D	0	2	2	10	P	S	0	1						
1	4	D	0	2	7	100	T	S	0	1						
1	5	D	0	3	0	150	P	S	0	1						
1	6	D	0	3	5	30	P	S	0	1						
1	7	D	0	3	6	1,000	P	S	0	1						
1	8	F	0	0	2	5,000	P	S	0	1						
1	9	F	0	0	3	2,000	T	S	0	1						
2	0	F	0	0	4	2,000	T	S	0	1						
2	1	F	0	0	5	2,000	P	S	0	1						
2	2	K	0	4	4	5	P	S	0	1						

8. Map

Attach to this application a topographical map, or other equivalent map, of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all spring, rivers, and other surface water bodies in this map area. See instructions for precise requirements.

9. Facility Drawing

All existing facilities must include a scale drawing of the facility. See instructions for more detail.

10. Photographs

All existing facilities must include photographs (aerial or ground-level) that clearly delineate all existing structures; existing storage, treatment, and disposal areas; and sites of future storage, treatment, or disposal areas. See instructions for more detail.

11. Comments

6. Process Codes and Design Capacities

Line Number		A. Process Code			B. Process Design Capacity		C. Process Total Number of Units	D. Unit Name
					(1) Amount	(2) Unit of Measure		

7. Description of Hazardous Wastes (Enter codes for Items 7.A, 7.C and 7.D(1))

Line No.		A. EPA Hazardous Waste No.				B. Estimated Annual Qty of Waste	C. Unit of Measure	D. Processes								
								(1) Process Codes								(2) Process Description (if code is not entered in 7.D1))
2	3	K	0	4	5	20	P	S	0	1						
2	4	K	0	4	7	10	P	S	0	1						
2	5	P	0	0	6	10	P	S	0	1						
2	6	P	0	2	2	25	P	S	0	1						
2	7	P	0	9	8	10	P	S	0	1						
2	8	U	0	0	2	500	P	S	0	1						
2	9	U	0	4	4	10	P	S	0	1						
3	0	U	0	8	0	30	P	S	0	1						
3	1	U	1	0	5	10	P	S	0	1						
3	2	U	1	0	9	10	P	S	0	1						
3	3	U	1	1	7	10	P	S	0	1						

8. Map

Attach to this application a topographical map, or other equivalent map, of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all spring, rivers, and other surface water bodies in this map area. See instructions for precise requirements.

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11. Comments

6. Process Codes and Design Capacities

Line Number		A. Process Code			B. Process Design Capacity (1) Amount	B. Process Design Capacity (2) Unit of Measure	C. Process Total Number of Units	D. Unit Name

7. Description of Hazardous Wastes (Enter codes for Items 7.A, 7.C and 7.D(1))

Line No.		A. EPA Hazardous Waste No.				B. Estimated Annual Qty of Waste	C. Unit of Measure	D. Processes (1) Process Codes								D. Processes (2) Process Description (if code is not entered in 7.D1))
3	4	U	1	2	1	10	P	S	0	1						
3	5	U	1	5	1	12,500	P	S	0	1						
3	6	U	1	5	4	100	P	S	0	1						
3	7	U	1	5	9	10	P	S	0	1						
3	8	U	1	6	5	10	P	S	0	1						
3	9	U	2	2	0	200	P	S	0	1						
4	0	U	2	2	6	10	P	S	0	1						
4	1	U	2	2	8	10	P	S	0	1						
4	2	U	2	3	9	50	P	S	0	1						
4	3	D	0	0	3	1950	T	X	0	1						Open Burning - Old Bomb
4	4	D	0	0	5			X	0	1						Weight included in Line #43

8. Map

Attach to this application a topographical map, or other equivalent map, of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all spring, rivers, and other surface water bodies in this map area. See instructions for precise requirements.

9. Facility Drawing

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All existing facilities must include photographs (aerial or ground-level) that clearly delineate all existing structures; existing storage, treatment, and disposal areas; and sites of future storage, treatment, or disposal areas. See instructions for more detail.

11. Comments

6. Process Codes and Design Capacities

Line Number		A. Process Code			B. Process Design Capacity		C. Process Total Number of Units	D. Unit Name
					(1) Amount	(2) Unit of Measure		

7. Description of Hazardous Wastes (Enter codes for Items 7.A, 7.C and 7.D(1))

Line No.		A. EPA Hazardous Waste No.				B. Estimated Annual Qty of Waste	C. Unit of Measure	D. Processes								
								(1) Process Codes								(2) Process Description (if code is not entered in 7.D1))
4	5	D	0	0	8			X	0	1						Weight included in Line #43
4	6	D	0	0	9			X	0	1						Weight included in Line #43
4	7	D	0	3	0			X	0	1						Weight included in Line #43
4	8	D	0	0	3	500	T	T	0	3						RF-9 Detonating Furnace
4	9	D	0	0	5			T	0	3						Weight included in Line #48
5	0	D	0	0	6			T	0	3						Weight included in Line #48
5	1	D	0	0	7			T	0	3						Weight included in Line #48
5	2	D	0	0	8			T	0	3						Weight included in Line #48
5	3	D	0	0	9			T	0	3						Weight included in Line #48
5	4	D	0	3	0			T	0	3						Weight included in Line #48
5	5	D	0	0	3	850	T	T	0	3						Bulk Energetics Demilitarization System

8. Map

Attach to this application a topographical map, or other equivalent map, of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all spring, rivers, and other surface water bodies in this map area. See instructions for precise requirements.

9. Facility Drawing

All existing facilities must include a scale drawing of the facility. See instructions for more detail.

10. Photographs

All existing facilities must include photographs (aerial or ground-level) that clearly delineate all existing structures; existing storage, treatment, and disposal areas; and sites of future storage, treatment, or disposal areas. See instructions for more detail.

11. Comments

6. Process Codes and Design Capacities

Line Number		A. Process Code			B. Process Design Capacity (1) Amount	B. Process Design Capacity (2) Unit of Measure	C. Process Total Number of Units	D. Unit Name

7. Description of Hazardous Wastes (Enter codes for Items 7.A, 7.C and 7.D(1))

Line No.		A. EPA Hazardous Waste No.				B. Estimated Annual Qty of Waste	C. Unit of Measure	D. Processes (1) Process Codes								D. Processes (2) Process Description (if code is not entered in 7.D1))
5	6	D	0	0	8			T	0	3						Weight included in Line #55
5	7	D	0	0	3	6240	T	T	0	3						Plasma Ordnance Demilitarization System
5	8	D	0	0	4			T	0	3						Weight included in Line #57
5	9	D	0	0	5			T	0	3						Weight included in Line #57
6	0	D	0	0	7			T	0	3						Weight included in Line #57
6	1	D	0	0	8			T	0	3						Weight included in Line #57
6	2	D	0	0	9			T	0	3						Weight included in Line #57
6	3	D	0	1	1			T	0	3						Weight included in Line #57
6	4	D	0	3	0			T	0	3						Weight included in Line #57

8. Map

Attach to this application a topographical map, or other equivalent map, of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all spring, rivers, and other surface water bodies in this map area. See instructions for precise requirements.

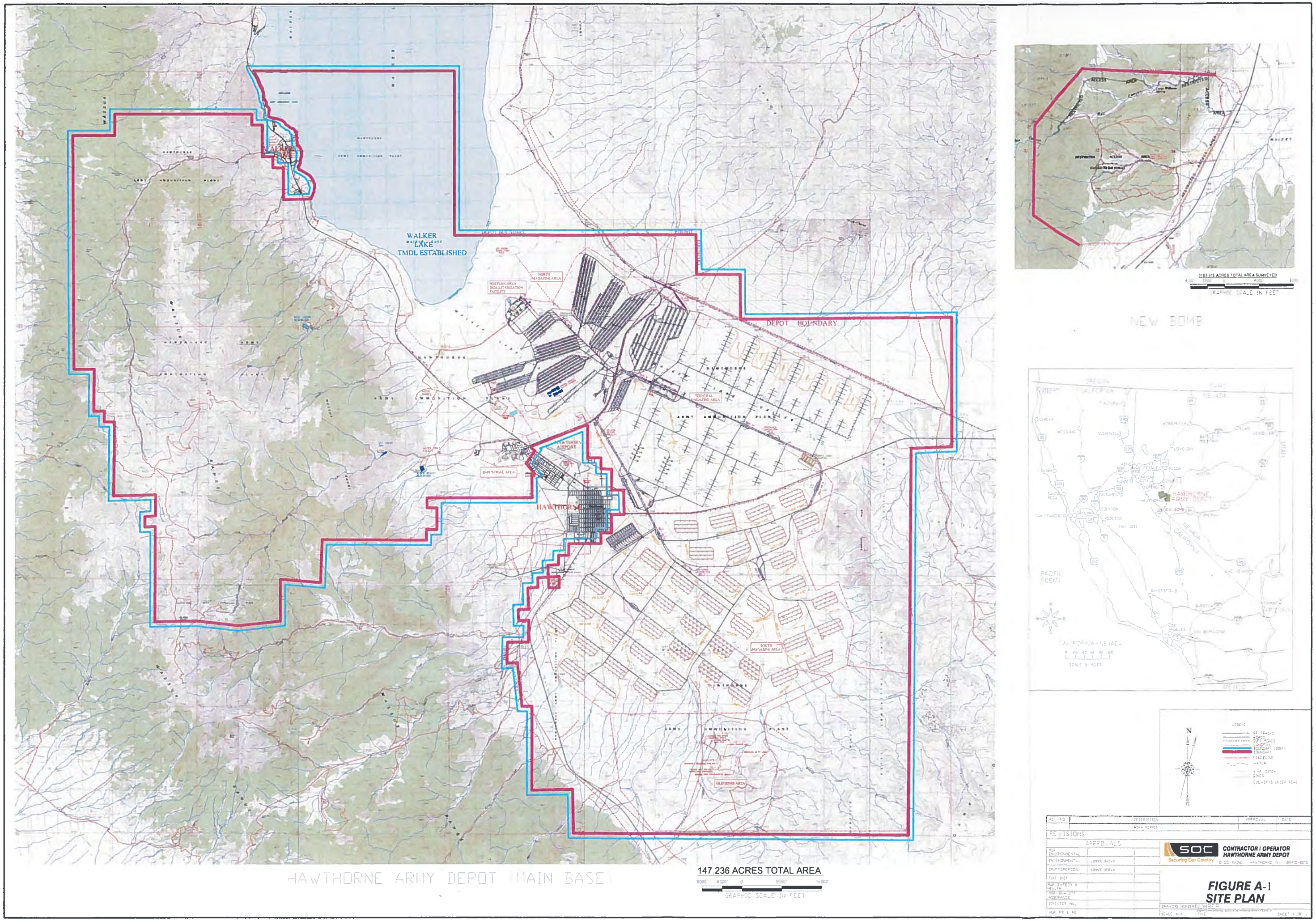
9. Facility Drawing

All existing facilities must include a scale drawing of the facility. See instructions for more detail.

10. Photographs

All existing facilities must include photographs (aerial or ground-level) that clearly delineate all existing structures; existing storage, treatment, and disposal areas; and sites of future storage, treatment, or disposal areas. See instructions for more detail.

11. Comments


WALKER LAKE
TMDL ESTABLISHED
DEPOT BOUNDARY
HAWTHORNE
HAWTHORNE AIRPORT
INDUSTRIAL AREA
NORTH MAGAZINE AREA
WESTERN AREA DEMILITARIZATION FACILITY
CENTRAL MAGAZINE AREA
SOUTH MAGAZINE AREA
GLD BOMB AREA
ARMY AMMUNITION PLANT
HAWTHORNE ARMY DEPOT (MAIN BASE)
147.236 ACRES TOTAL AREA
GRAPHIC SCALE IN FEET
NEW BOMB
3183.218 ACRES TOTAL AREA SURVEYED
GRAPHIC SCALE IN FEET
PACIFIC OCEAN
CALIFORNIA-NEVADA
SCALE IN MILES
LEGEND
REVISIONS
APPROVALS
SOC
Securing Our Country
CONTRACTOR / OPERATOR
HAWTHORNE ARMY DEPOT
FIGURE A-1
SITE PLAN

N

EVAP PONDS

AMMUNITION BREAK DOWN & CONTROL ROOM for SAWS (117-6)

.50 CAL WELLS SAW 30-MM SAW (117-9)

EVAP POND (INACTIVE)

REFINING BUILDING EXPLOSIVE STEAM OUT (117-5)

(117-15A) NOT IN USE

HOT GAS FACILITY (117-16)

RANGE SCRAP MATERIALS SEGREGATION FACILITY (117-17)

READY MAGS (117-13)

PREPARATION BUILDING (117-10) 20MM'S 84M

EVAP POND (INACTIVE)

READY MAGS (117-14)

(117-15) NOT IN USE

DECONTAMINATION & SMALL ITEMS FURNACE BUILDING RF-9 ROTARY FURNACE SMALL ARMS UP TO 20 MM FF-13 DECONTAMINATION FLASHING FURNACE (117-3)

PODS & BOILER BUILDING (117-2)

EVAPORATION POND

EVAP. POND (INACTIVE)

STEAM OUT

410# PRESSURE WASH OUT

SERVICES & SUPPORT BUILDING (117-1)

OFF-LOADING DOCK (117-18)

ACCUMULATOR BUILDING (117-11) NOT ACTIVE

WATER TREATMENT FACILITY (117-7)

STEAMOUT BUILDING (117-8)

BULK INCINERATOR PREP BUILDING BEDS (NOT PERMITTED) (117-4)

COOLING WATER STORAGE PONDS

WESTERN AREA DEMILITARIZATION FACILITY (WADF)

200 100 0 200 400

GRAPHIC SCALE IN FEET

SOC Securing Our Country

CONTRACTOR / OPERATOR
HAWTHORNE ARMY DEPOT

2 SO. MAINE HAWTHORNE, NV 89415-0015

Western Area Demilitarization Facility FIGURE A-2

DRAWING NUMBER

SCALE SHOWN | FILE: H:\Environmental\GIS\RCRA\MXD\base\PERMIT\FIGURE4-2 | SHEET 1 OF 1

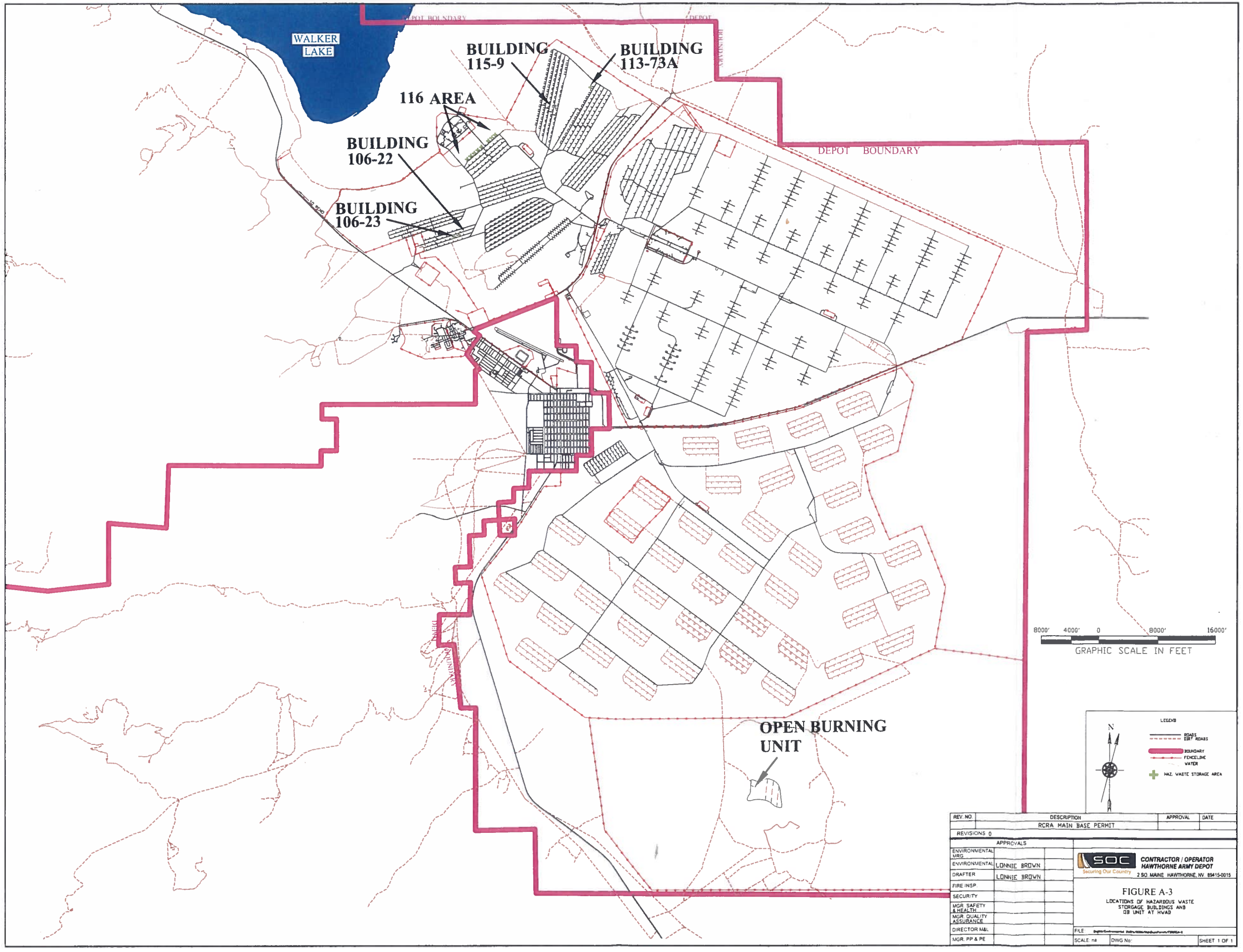
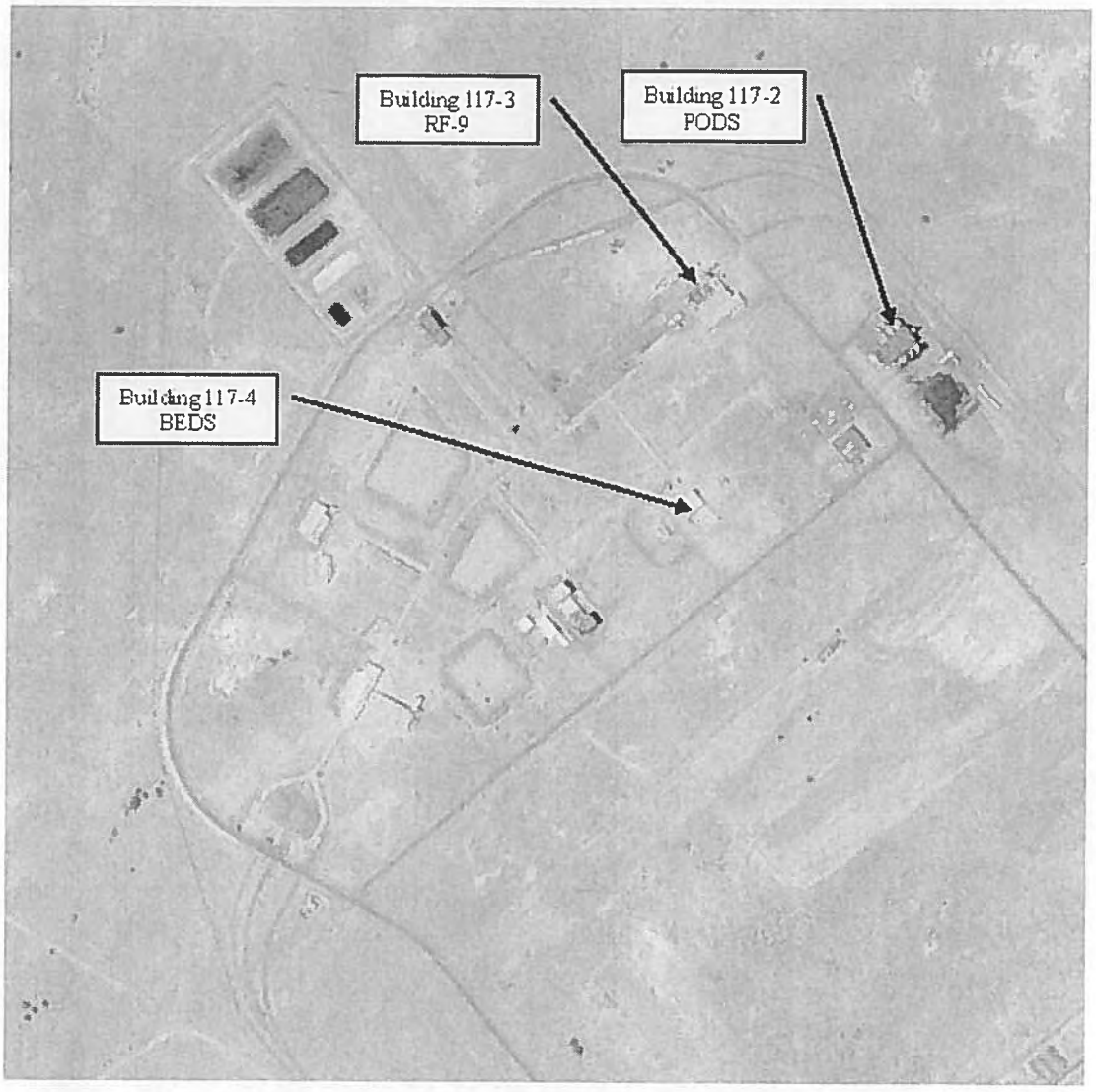
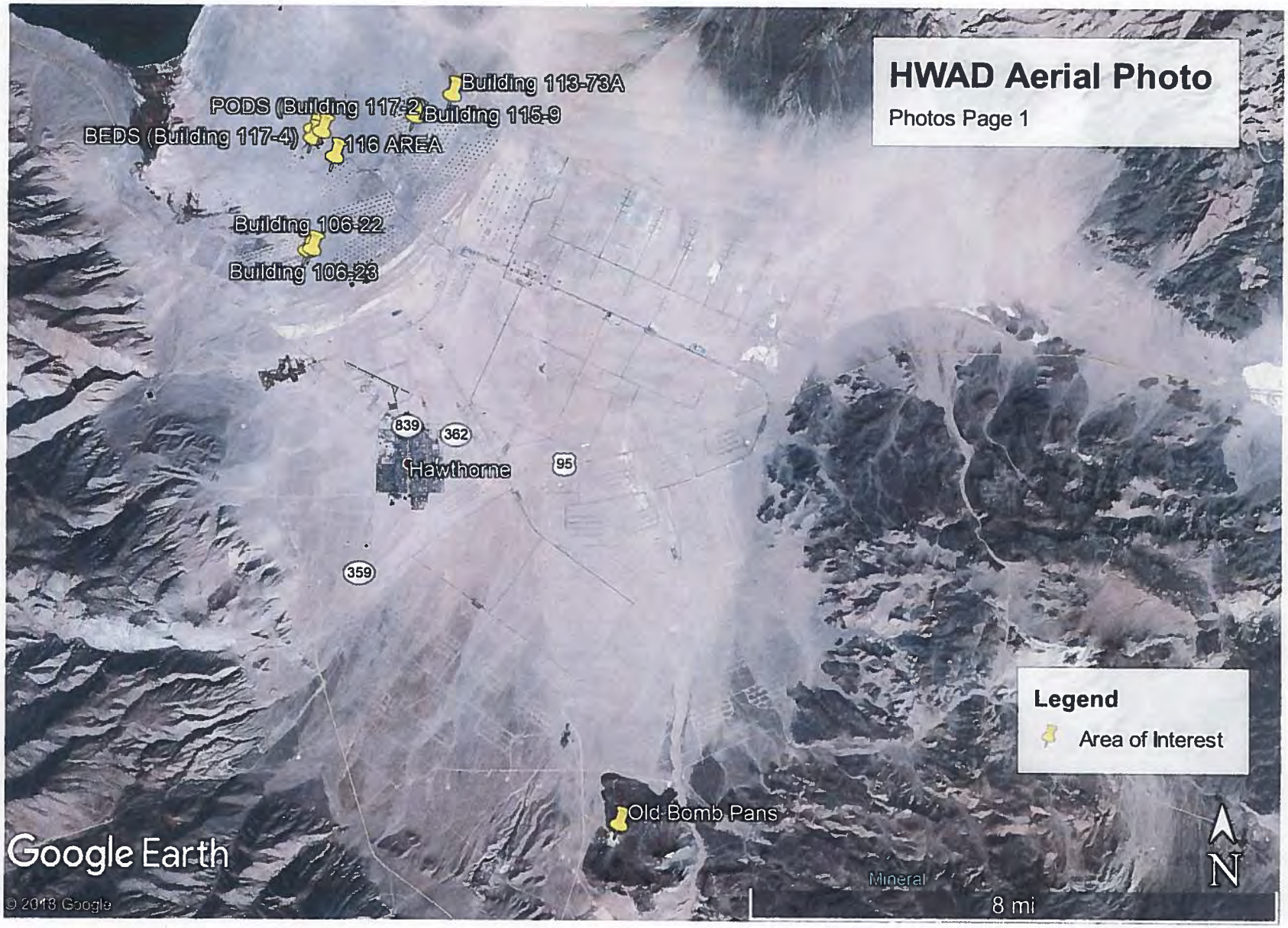

WALKER LAKE
DEPOT BOUNDARY
BUILDING 115-9
BUILDING 113-73A
116 AREA
BUILDING 106-22
BUILDING 106-23
OPEN BURNING UNIT
8000' 4000' 0 8000' 16000'
GRAPHIC SCALE IN FEET
N
LEGEND
ROADS
DIRT ROADS
BOUNDARY
FENCELINE
WATER
HAZ. WASTE STORAGE AREA
REV. NO.
DESCRIPTION
APPROVAL
DATE
RCRA MAIN BASE PERMIT
REVISIONS 0
APPROVALS
ENVIRONMENTAL MRG
ENVIRONMENTAL
LONNIE BROWN
DRAFTER
LONNIE BROWN
FIRE INSP.
SECURITY
MGR. SAFETY & HEALTH
MGR. QUALITY ASSURANCE
DIRECTOR M&L
MGR. PP & PE
SOC
Securing Our Country
CONTRACTOR / OPERATOR
HAWTHORNE ARMY DEPOT
2 SO. MAINE HAWTHORNE, NV 89415-0015
FIGURE A-3
LOCATIONS OF HAZARDOUS WASTE STORGAGE BUILDINGS AND OB UNIT AT HWAD
FILE:
SCALE: na
DWG No:
SHEET 1 OF 1

Figure V-9
AERIAL PHOTO OF THE AREA AROUND BUILDING 117-4




HWAD Aerial Photo
Photos Page 1
Building 113-73A
PODS (Building 117-2)
Building 115-9
BEDS (Building 117-4)
116 AREA
Building 106-22
Building 106-23
839
362
Hawthorne
95
359
Legend
Area of Interest
Old Bomb Pans
Google Earth
© 2018 Google
Mineral
8 mi
N

Area 106 Aerial Photo
Photos Page 2
Lake Rd
Salvage Rd
Dirt Rd
Building 106-22
Building 106-23
Legend
Area of Interest
N
3000 ft
Google Earth
© 2018 Google

List of Restricted Wastes at HWAD Main Base

[See Permit Condition 2.8]

The Permittee is not authorized to receive, treat, store, dispose of, or otherwise manage the following wastes:

1. Any radioactive material that is not exempt from regulation and licensing or is not expressly authorized for storage and treatment under this Permit or any radioactive or nuclear waste material which requires specific licensing or permitting under any other rules of state or federal authorities;
2. Compressed or pressurized gases which are a hazardous waste (not to include aerosol spray containers);
3. Any offsite generated material with PCBs greater than 50 ppm;
4. Chemical Munitions, Biological Agents, Etiologic Agents or infectious wastes;
5. The hazardous waste described as "prohibited" in:
    1. Permit Section 3.3;
    2. Permit Section 6.2;
    3. Permit Section 7A.2;
    4. Permit Section 7B.2; or
    5. Permit Section 7C.2.
6. Hazardous waste from a foreign source.

List of Other Activities Authorized at HWAD Main Base

As described in the Permit Application, the Permittee is also authorized to perform the following activities:

1. Flashing explosive-contaminated projectiles or small munition items.
2. Recovering explosive residue from process water.
3. Decontaminating large caliber munitions casings.
4. Processing and decontamination of range scrap.

The following documents are adopted herein as if fully set forth in this permit:

1. HWAD – Main Base RCRA Part B Application Volumes 1, 2 and 3 – March 2018 and subsequent revisions.