RCRA PERMIT
FOR A HAZARDOUS WASTE MANAGEMENT FACILITY

Permittee:	**United States Department of Energy, Nevada Field Office** **Nevada National Security Site**	REVISION 6
Facility EPA ID#:	**NV3890090001**	
Permit Number:	**NEV HW0101**	

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 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 Energy, National Nuclear Security Administration, Nevada Field Office (hereafter called the Permittee), to operate 1) a mixed radioactive hazardous waste disposal facility (MWDU); 2) a mixed radioactive hazardous waste storage facility (MWSU); 3) a nonradioactive hazardous waste storage facility (HWSU), and 4) an Explosive Ordnance Disposal Unit (EODU), all located at the Nevada National Security Site (NNSS) approximately 105 km (65 mi) northwest of Las Vegas, Nevada summarily described as follows:

The MWDU is located in the remote southeastern portion of the NNSS, within the Area 5 Radioactive Waste Management Complex (RWMC). The RWMC includes the Area 5 Radioactive Waste Management Site (RWMS) which is an active disposal site for low level waste. The MWDU is located near the northeastern corner of the RWMC, and consists of:

- Two (2) Subtitle C landfills:
  - Cell 18 with a design capacity of 25,485 m^3 (33,334 yd^3)
  - Cell 25 with a design capacity of 37,000 m^3 (48,394 yd^3)
- Two (2) aboveground tanks used to contain leachate:
  - 18-T1 (LPW-TNK-001) with a 3,000 gallon capacity
  - 25-T1 (LPW-TNK-002) with a 10,000 gallon capacity.

The MWSU is located in the remote southeastern portion of the NNSS, within the Area 5 RWMC. The total capacity for the MWSU is approximately 18,426 m^3 (650,708 ft^3). The MWSU is comprised of existing structures within the RWMC and consists of:

- One Transuranic (TRU) Pad Cover Building (TPCB) and TRU Pad (TP), with a maximum storage volume of 17,690 m^3 (624,716 ft^3);
- One Sprung Instant Structure (SIS) Building, with a maximum storage volume of 365 m^3 (12,890 ft^3);
- One Visual Examination and Repackaging Building (VERB), with a maximum storage volume of 240 m^3 (8,476 ft^3);
- One Drum Holding Pad (DHP), with a maximum storage volume of 131 m^3 (4,626 ft^3).

The HWSU is located in the remote southeastern portion of the NNSS, adjacent to the Area 5 RWMC. The HWSU is a prefabricated, rigid steel-framed roofed shelter used to store hazardous, nonradioactive waste generated on the NNSS. The unit was originally designed as a 90-day nonradioactive Hazardous Waste Accumulation Site (HWAS) and has been in operation since 1990. In 1995 the NDEP permitted the HWAS as a RCRA HWSU in order to provide the NNSS with increased storage capability for hazardous waste. The HWSU consists of:

- One (1) prefabricated, rigid steel-framed roofed shelter. The floor is a monolithic pour with a coating applied to the exposed surfaces. The storage area floors are 31 meters (100 feet) long by 9.1 meters (30 feet) wide. Integral 15 cm (6 inch) curbs are provided above the 15 cm (6 inch) concrete floor slab, around the exterior of the structure and between the five segregated storage cells.

The EODU is located in a remote portion of Area 11 within the NNSS. The controlled area containing the EODU includes approximately 20 acres of land and consists of:

- One detonation pit surrounded by an earthen pad, approximately 20 meters (65 feet) by 31 meters (100 feet);
- Ancillary equipment that includes and explosives magazine and firing point area;
- One satellite accumulation area (SAA).

The Permittee is required to perform groundwater monitoring as well as post-closure care and monitoring. The Permittee must comply with all terms and conditions of this Permit. This Permit consists of the conditions contained herein, the Permit Application, and the applicable regulations contained in 40 CFR Parts 124, 260 through 266, and 270, and Sections 206, 212, and 224 of Hazardous and Solid Waste Amendments (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 Application documents dated April 2017 (for MWDU, HWSU, EODU and MWSU) (hereafter referred to as the Permit Application) is accurate and that the facilities are constructed and operated as specified in the Permit Application and this Permit.

Any inaccuracies found in the submitted information may be grounds for the termination, revocation and reissuance, or modification 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

the 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 December 10, 2015 and shall remain in effect until December 10, 2020 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 years after the date of Permit issuance or reissuance and shall be modified as necessary, as provided in NRS 459.520 (4) and 40 CFR 270.50 (d).

Christine Andres — May 21, 2018

Christine Andres
Chief, Bureau of Federal Facilities

Date

1. SUMMARY

The Permittee is a non-commercial hazardous waste Treatment, Storage and Disposal Facility (TSDF). The Permittee may treat, store and/or dispose of all waste identified in the Part A applications and managed as identified in the Part B applications which are adopted by reference and are attachments to this Permit. 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 treat, store and/or dispose of hazardous and/or mixed waste in accordance with the conditions of this permit and its attachments. Any treatment, storage and/or disposal of hazardous and/or mixed 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 RCRA, NRS 459.400 through 459.600, NAC 444.842 through 444.8746, NAC 444.960, 444.965 through 444.976 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, any 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 (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. [40 CFR 270.4 and 270.30(g)]

The State of Nevada has adopted 40 CFR Subpart A of Part 2, Subparts A and B of Part 124, 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. Therefore, all references to 40 CFR in this Permit shall be interpreted to include reference to NAC 444.8632.

Any ambiguity resulting from different language used in an attachment versus the body of this permit shall be resolved in favor of terms and conditions found in the body of this permit.

1.2. PERMIT ACTIONS

1.2.1. Permit Modification, Revocation and Reissuance, 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 270.4(a) and 270.30(f)]

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, 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 NAC 444.8746, NAC 444.965 through 444.976, as well as 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 will apply:

1.4.1. Administrator

The Administrator of the Nevada Division of Environmental Protection (NDEP) or his/her designee or authorized representative.

1.4.2. Certified Laboratory

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

1.4.3. Closure plan

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

1.4.4. Compliance Period

The number of years equal to the active life of the unit prior to the Director's approval of certification of closure and subsequent post-closure period.

1.4.5. Contamination

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

1.4.6. 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, soil, surface water sediment, groundwater, or subsurface gas.

1.4.7. Director

The Director of the Nevada Department of Conservation and Natural Resources (DCNR) or his/her designee or authorized representative.

1.4.8. Division

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

1.4.9. Facility

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

1.4.10. Hazardous Constituents

Those substances listed in 40 CFR 261 Appendix VIII and/or 40 CFR Part 264 Appendix IX.

1.4.11. Hazardous Waste Management Unit

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**.**

1.4.12. 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.

1.4.13. Land Disposal

Placement in or on the land except for a Corrective Action Management Unit (CAMU) and includes, but is not limited to, placement in a landfill, surface impoundment, waste pile, injection well, land treatment facility, salt dome formation, underground mine or cave, or concrete vault or bunker intended for disposal purposes.

1.4.14. Landfill

Any disposal at the facility or part of the facility where hazardous waste is or was placed in or on the land and is to be left in place.

1.4.15. Mixed Low-Level Waste

A waste that contains both low-level radioactive waste and RCRA hazardous waste.

1.4.16. 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.

1.4.17. Post-closure plan

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

1.4.18. 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.

1.4.19. Release

Any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment of any hazardous waste or hazardous constituents.

1.4.20. 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.

1.4.21. 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).

1.4.22. 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).

1.4.23. 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 specific standards as specified in 40 CFR 264.553.

1.4.24. 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 to the extent and for the duration such noncompliance is authorized by an emergency Permit. Any Permit noncompliance, other than noncompliance authorized by an emergency Permit, constitutes a violation of RCRA 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 Schedules

Any schedule of compliance established subsequent to the issuance of this Permit 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 allowed 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 Permit expiration. [40 CFR 270.10(h), 270.30(b)]

1.5.4. Permit Expiration

Pursuant to NRS 459.520 (4), this Permit shall be effective for a fixed term not to exceed five (5) years. As long as the Director is the Permit-issuing authority, this Permit and all conditions herein will remain in effect beyond the Permit's expiration date, if the Permittee has submitted a timely, complete application (see 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. Property Rights

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

1.5.9. 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), 270.30(h)]

1.5.10. Inspection and Entry

Pursuant to 40 CFR 270.30(i), the Permittee shall allow the Director, or an authorized representative, upon presentation of credentials and other documents, as may be required by law, to:

1.5.10.1. 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;

1.5.10.2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Permit;

1.5.10.3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Permit, and;

1.5.10.4. 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.

1.5.11. Monitoring and Records

1.5.11.1. Samples and measurements taken for the purpose of 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, Section 3 of the Permit Application. [40 CFR 270.30(j)(1)]

1.5.11.1.1. Both groundwater and soil samples for regulatory monitoring and remedial efforts must be sent to a Nevada-certified laboratory for analyses. [NRS 445A.425 and 427]

1.5.11.2. The Permittee shall retain records of all monitoring information, including all calibration and maintenance records (for analyses conducted in the on-site

laboratory), copies of all reports and records 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 3 years from the date of the sample, measurement, report, record, certification, or application. In addition, the Permittee shall maintain records from all ground-water monitoring wells and associated ground-water surface elevations for the active life of the facility and throughout post-closure. These periods may be extended by request of the Director at any time and are automatically extended during the course of any unresolved enforcement action regarding this facility. [40 CFR 264.74(b) and 270.30(j)(2)]

1.5.11.3. Records of monitoring information shall specify [40 CFR 270.30(j)(3)]:

1. The dates, exact place, and times of sampling or measurements;
2. The individuals who performed the sampling or measurements;
3. The dates analyses were performed;
4. The individuals who performed the analyses;
5. The analytical techniques or methods used; and
6. The results of such analyses.

1.5.12. Signatory Requirement

All applications, reports, or information submitted to or requested by the Director, his designee, or authorized representative, shall be signed and certified in accordance with 40 CFR 270.11 and 270.30(k) and NAC 444.8632.

1.5.13. 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. Reporting Anticipated Noncompliance

The Permittee shall give advance notice 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)]

1.5.15. Certification of Construction or Modification

The Permittee may not commence treatment, storage or disposal of hazardous waste in any modified or newly constructed portion of the facility 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. 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)]

3. Within 15 calendar days of the date of submission of the letter in Section 1.5.15.1 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)]

1.5.16. 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 pursuant to 40 CFR 270.40. Before transferring ownership or operation of the facility during its operating life, the Permittee shall notify the new owner or operator in writing of the requirements of 40 CFR Parts 264 and 270, NAC 444.842 through 444.8746, NAC 444.960, and this Permit. [40 CFR 270.30(l)(3), 264.12(c)]

1.5.17. 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)]

1.5.18. 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 14 calendar days following each schedule date. [40 CFR 270.30(l)(5)]

1.5.19. Twenty-Four Hour Reporting

1.5.19.1. The Permittee shall report to the Director any noncompliance which may endanger health or the environment. Any such information shall be reported orally within 24 hours from the time the Permittee becomes aware of the circumstances. The report shall include the following:

1. Information concerning 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.

1.5.19.2. 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 materials 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.

1.5.19.3. A written submission shall also be provided within five 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); whether the noncompliance has been corrected; and, if not, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. The Director may waive the five-day written notice requirement in favor of a written report within 15 days. [40 CFR 270.30(l)(6)]

1.5.20. Other Noncompliance

The Permittee shall report all other instances of noncompliance not otherwise required to be reported above at the time monitoring reports are submitted. The reports shall contain the information listed in Permit Condition 1.5.19.2. [40 CFR 270.30(l)(10)]

1.5.21. Other Information

Whenever the Permittee becomes aware that it failed to submit any relevant facts in the 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)]

1.5.22. Information Repository

The Permittee shall maintain at the facility 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 and/or the life of the Permit whichever is longer. [40 CFR 270.30(m)]

1.6. LAND DISPOSAL RESTRICTIONS

1.6.1. General Waste Restrictions

1.6.1.1. The Permittee shall not store any non-radioactive hazardous waste restricted from

land disposal under Subpart C of 40 CFR Part 268, except for the purpose of accumulation of such quantities of hazardous waste as necessary to facilitate proper treatment or disposal. Each container of non-radioactive restricted hazardous waste must be clearly marked to identify its contents and the date accumulation begins. The Permittee may store such wastes beyond one year; however, the Permittee bears the burden of proving that such storage was solely for the purpose of accumulation of such quantities of hazardous waste as are necessary to facilitate proper recovery, treatment or disposal.

1.6.1.2. "Restricted Waste" means any hazardous waste restricted from land disposal under the authority of Section 3004 of RCRA or regulated by 40 CFR Part 268. Non-restricted waste mixed with restricted waste becomes restricted waste and must meet the applicable standards of 40 CFR Part 268.

1.6.1.3. The Permittee shall not in any way dilute a restricted waste as a substitute for adequate treatment to achieve compliance with 40 CFR Part 268 Subpart D, to circumvent the effective date of prohibition in 40 CFR Part 268 Subpart C, or to circumvent a land disposal prohibition imposed by RCRA Section 3004.

1.6.2. Condition 1.6.1 does not apply to wastes which are subject of an approved petition under 40 CFR 268.6, or a nationwide variance contained in Subpart C of 40 CFR Part 268, or an approved extension under 40 CFR 268.5.

1.6.3. Condition 1.6.1 does not apply to wastes which meet the treatment standards specified under 40 CFR 268.40, 268.42, or to wastes which are in compliance with the applicable prohibitions specified in 40 CFR 268.31, or in Section 3004 of RCRA.

1.6.4. Record-keeping Requirements

1.6.4.1. The Permittee shall maintain, in the operating record, records and results of waste analysis performed, as required by 40 CFR 268.7.

1.6.4.2. The Permittee shall maintain, in the operating record, documentation that they have complied with the notification and certification requirements of 40 CFR 268.7 for all hazardous wastes which are sent off-site.

1.7. TREATMENT OF CONTAINERIZED WASTE

1.7.1.1. 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" [40 CFR 260.10]. Treatment does not include the addition of absorbent for incidental liquids.

1.7.1.2. Permittee is prohibited from treating waste generated outside of the NNSS.

1.7.1.3. Permittee is allowed treat containerized waste that was generated within NNSS and may only use methods allowed by 40 CFR 262.34 to treat the waste.

1.8. WASTE MINIMIZATION

Pursuant to 40 CFR 264.73(b)(9), the Permittee shall include a certification in the Facility operating record, no less often than annually, that the Permittee has a program in place to reduce the volume and toxicity of hazardous waste it generates, to the degree determined to be economically practicable; and that the proposed method of treatment, storage, or disposal is that practicable method currently available to the Permittee which minimizes the present and future threat to human health and the environment. The Permittee shall maintain an annual Waste Minimization Report in the Facility operating record that will include the following:

1.8.1. A description of the efforts undertaken during the year to reduce the volume and toxicity of waste generated as required by 40 CFR 264.75(h);

1.8.2. A description of the changes in volume and toxicity of waste actually achieved during the year covered by the report in comparison to previous years, to the extent such information is available for the years prior to 1984, as required by 40 CFR 264.75(i); and

1.8.3. The certification signed by the owner or operator of the Facility or his authorized representative, as required by 40 CFR 264.75(j).

1.9. 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:

Nevada Division of Environmental Protection
Las Vegas Office
ATTN: Bureau Chief
Bureau of Federal Facilities
2030 E. Flamingo Rd., Suite 230
Las Vegas, NV 89119

1.10. CONFIDENTIAL INFORMATION

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

1.11. DOCUMENTS TO BE MAINTAINED AT THE FACILITY

The Permittee shall maintain at the facility, until closure is completed, 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. All Groundwater Monitoring Records inclusive of installation details for all wells installed as required by this Permit or otherwise
8. Corrective Action Plans and Reports
9. All instances of implementation of the Contingency Plan
10. All correspondence related to changes or modifications to this Permit
11. Unusual Occurrence Reports documenting (examples only): 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.
12. Engineering Report and the Specifications for the Radioactive Waste Management Complex; Prime Contract: DE-AC52-06NA25946; Subcontract: 113468; Dated June 2010.

1.12. AGREEMENTS AND CONSENT ORDERS

1. The Settlement Agreement for Transuranic Mixed Waste Storage Issues at the Nevada National Security Site (NNSS) between the Nevada Division of Environmental Protection and the United States Department of Energy (DOE) is hereby incorporated by reference as the conditions under which the Permittee shall store restricted Transuranic mixed waste.

1.13. 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 the Permit and 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 a 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. The Permittee shall operate the facility as specified in all sections of the Permit Application. This Permit adopts specific sections of the application referencing specific management practices etc. However, the Permittee shall also comply with any section of the Permit Application not specifically referenced in this Permit.

2.2. MIXED WASTES (RADIOACTIVE AND HAZARDOUS WASTES)

The Permittee shall not accept or manage any hazardous waste except as defined within the MWDU, MWSU, HWSU, and EODU Permit Applications. The Mixed Low-Level Waste (MLLW) and Hazardous Waste is characterized and identified in these Permit Applications.

2.3. REQUIRED NOTICES

2.3.1. Waste Imports

The Permittee shall notify the Director in writing at least four weeks in advance of the date the Permittee expects to receive hazardous waste from a foreign source, as required by 40 CFR 264.12 (a). Notice of subsequent shipments of the same waste from the same foreign source is not required.

2.3.2. Hazardous Waste from Off-Site Sources

When the Permittee is to receive hazardous waste from an off-site source (except where the Permittee is also the generator), the Permittee must inform the generator in writing that they have the appropriate Permits, and will accept the waste the generator is shipping. The Permittee must keep a copy of this written notice as part of the operating record. [40 CFR 264.12(b)]

2.4. GENERAL WASTE ANALYSIS

The Permittee shall comply with the waste analysis requirements of 40 CFR 264.13 by following the Waste Analysis Plan procedures of Permit Application Section B.3 (MWSU, EODU & HWSU), Permit Application Section B.4 (MWDU) and the conditions listed below:

The Permittee shall verify the analysis of each waste stream annually 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, as 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 as approved in this Permit.

2.4.1. Waste Stream Review

Through the DOE Radioactive Waste Acceptance Program (RWAP) and the Waste Acceptance Review Panel (WARP), the Permittee shall submit to the Director for review, all new MLLW waste streams submitted to the Permittee for land disposal. The submitted information shall, at minimum, contain the following documents:

1. A completely filled out Waste Profile
2. Supporting documentation, such as Technical Basis Documents;
3. Others as requested by the Director.

2.5. SECURITY

The Permittee shall comply with the security provisions of 40 CFR 264.14 (b)(2) and (c) by complying with the Security Plan in Permit Application Section B.4 (MWSU, EODU & HWSU) and Permit Application Section B.5 (MWDU).

2.6. GENERAL INSPECTION REQUIREMENTS

The Permittee shall comply with the Inspection Plan requirements of 40 CFR 264.15 by following the Inspection Plan procedures in the Permit Application Section B.5 (MWSU, EODU & HWSU) and Permit Application Section B.6 (MWDU). The Permittee shall remedy any deterioration or malfunction discovered by an inspection, as required by 40 CFR 264.15(c). Records of all inspection shall be kept, as required by 40 CFR 264.15(d).

2.7. PERSONNEL TRAINING

The Permittee shall conduct personnel training, as required by 40 CFR 264.16. The Permittee shall follow the Personnel Training Program procedures in the Permit Application Section B.12 (MWSU, EODU & HWSU), Permit Application Section B.13 (MWDU) and maintain training documents and records, as required by 40 CFR 264.16(d) and (e).

2.7.1. Training Program

2.7.1.1. 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)]

2.7.1.2. Instructor Qualifications and Training Content

The training program must be directed by a person trained in hazardous waste management procedures and 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)]

2.7.1.3. Emergency Response

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.

2.7.1.4. 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 section, provided that the overall facility training meets all the requirements of 40 CFR 264.16.

2.7.2. Training Schedule

Facility personnel must successfully complete the program required in Permit Condition 2.7.1 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.

2.7.3. Annual Review

Facility personnel must take part in an annual review of the initial training required in Permit Condition 2.7.1.

2.7.4. Documentation

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

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.

4. Records that document that the training or job experience required under Permit Conditions 2.7.1, 2.7.2 and 2.7.3 has been given to, and completed by, facility personnel.

2.7.5 Record Keeping

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.

2.8. SPECIAL PROVISIONS FOR IGNITABLE, REACTIVE, OR INCOMPATIBLE WASTE

The Permittee shall comply with the requirements of 40 CFR 264.17. Per Section B.10 of the Permit Application, ignitable, corrosive, reactive, and incompatible wastes shall not be accepted for disposal at the MWDU.

2.9. RESTRICTED WASTES

The Permittee is only authorized to receive, store, or otherwise manage the wastes listed in Table 4, Section B.2 (MWSU, EODU & HWSU) and Table 3, Section B.3.a (MWDU) of the Permit Application.

2.10. PREPAREDNESS AND PREVENTION

2.10.1. Required Equipment

At a minimum, the Permittee shall maintain at the facility the equipment set forth in the Contingency Plan in the Permit Application Section B.7 (MWSU, EODU & HWSU) and Permit Application Section B.8 (MWDU), as required by 40 CFR 264.32.

2.10.2. Testing and Maintenance of Equipment

The Permittee shall test and maintain the equipment specified in the Contingency Plan in Permit Application Section B.7 (MWSU, EODU & HWSU) and Permit Application Section B.8 (MWDU), as required by 40 CFR 264.33.

2.10.3. Access to Communications or Alarm System

The Permittee shall maintain access to the communications or alarm system, as required by 40 CFR 264.34.

2.10.4. Required Aisle Space

The Permittee must maintain aisle space to allow the unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment to any area of facility operation in an emergency; unless it can be demonstrated to the Director that aisle space is not needed for any of these purposes. [40 CFR 264.35]

2.10.5. Arrangements with Local Authorities

The Permittee shall maintain arrangements with State and local authorities as specified in Permit Application Section B.7 (MWSU, EODU & HWSU) and Permit Application Section B.8 (MWDU), as required by 40 CFR 264.37. If State or local officials refuse to enter into preparedness and prevention arrangements with the Permittee, the Permittee must document this refusal in the operating record.

2.11. CONTINGENCY PLAN

2.11.1. Implementation of Plan

The Permittee shall immediately carry out the provisions of the Contingency Plan in Permit Application Section B.7 (MWSU, EODU & HWSU) and Permit Application Section B.8 (MWDU), whenever there is a fire, explosion, or release of hazardous waste or constituents, which could threaten human health or the environment.

2.11.2. Copies of Plan

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

The Permittee shall review and immediately amend, if necessary, the Contingency Plan, as required by 40 CFR 264.54.

2.11.4. Emergency Coordinator

A qualified emergency coordinator shall be available at all times in case of an emergency, as required by 40 CFR 264.55. The Emergency Coordinator shall comply with the requirements of 40 CFR 264.56.

2.12. MANIFEST SYSTEM

The Permittee shall comply with the manifest requirements of 40 CFR 264.71, and 264.76 and NAC 444.8666 by following the procedures in Permit Application Section B.3 (MWSU, EODU & HWSU) and Permit Application Section B.4 (MWDU) consistent with:

1. Signing and dating each copy of the manifest to certify that the hazardous waste covered by the manifest was received[1];

2. Noting any significant discrepancies in the manifest as defined below, on each copy of the manifest[1];

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

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 30 days after the delivery, send a copy of the manifest to the generator; and

5. Retain at the facility a copy of each manifest for at least three years from the date of delivery.

6. The Permittee shall comply 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 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 the 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 40 CFR 264.73.

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

2.13.2. Soil Characterization Report (EODU)

The Permittee shall conduct a site characterization every five years over the life of the unit and before closure of the unit. The Permittee shall submit to the Director the analytical results for soil characterization by March 31, 2020. The data shall be reported in in a format agreed upon by the Division and permitee.

2.13.3. Biennial Reports

The Permittee shall comply with the biennial reporting requirements of 40 CFR 264.75.

2.13.4. Annual Asbestos Report

The Permittee shall prepare and submit to the Division a report of the Asbestiform Low-Level Waste received at the site for the calendar year. The report must be submitted to the Division within 30 days following the end of each calendar year, in a format agreed upon by the Division and permitee.

2.13.5. Quarterly Asbestos Report

The Permittee shall prepare and submit to the Division a report of the Asbestiform Low-Level Waste received at the site in accordance with NAC 444.972 and agreements reached with NDEP. The report must be submitted to the Division within 30 days following the end of each calendar quarter, in a format agreed upon by the Division and permitee.

2.13.6. Annual Groundwater Report

The Permittee shall prepare and submit to the Division a report of the analytical and field data results for the calendar year. The report must be submitted to the Division by March 31st of each reporting year, in a format agreed upon by the Division and permitee.

2.13.7. Annual Post-Closure Monitoring

The Permittee shall prepare and submit to the Division a report of the results of post-closure monitoring activities for the calendar year. The report must be submitted to the Division by May 31st of each reporting year, in a format agreed upon by the Division and permitee.

2.13.8. Annual Summary/Waste Minimization Report

The Permittee shall prepare and submit an annual report by March 1 of the following year. The report shall contain the following information:

1. The EPA identification number, name, and address of the facility;
2. The calendar year covered by the report;
3. The EPA identification number of each generator from which the Permittee received a waste stream during the year (where applicable). In addition, the name and address of foreign generators shall be provided for all imported shipments (where applicable).
4. A description and quantity of each waste stream in tons and cubic feet received at the facility. This information must be listed by EPA identification number for each generator.
5. The method of treatment, storage, and/or disposal for each waste stream.
6. A description of the waste minimization efforts undertaken during the year to reduce the volume and toxicity of wastes generated by the Permittee.
7. A description of the changes in volume and toxicity of waste actually achieved during the year in comparison to previous years.
8. Unusual occurrence reports covering all rejected shipments during the year and copies of the quarterly reviews of these reports which is required by the WAP. Any letters sent to a generator/broker during the year as required by the WAP must also be included.

9. The certification signed by the operator of the facility or his authorized representative.
10. The results of tank integrity assessments.

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 Closure Plan in Permit Application Section B.13 (MWSU, EODU & HWSU) and Permit Application Section B.14 (MWDU).

2.14.2. Amendment to Closure Plan

The Permittee shall amend the Closure Plan, in accordance with 40 CFR 264.112(c), whenever necessary.

2.14.3. Notification of Closure

The Permittee shall notify the Director in writing at least 45 days prior to the date on which the facility expects to begin partial or final closure of the facility, as required by 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, remove from the unit or facility, or dispose of on-site all hazardous wastes and shall complete closure activities, in accordance with 40 CFR 264.113 and the schedules specified in the Closure Plan in Permit Application Section B.13 (MWSU, EODU & HWSU), Permit Application Section B.14 (MWDU), and/or as determined by the Director.

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 Closure Plan. In the event not all structures, soils or equipment can be shipped offsite, the Permittee shall close the facility as determined by the Director.

2.14.6. Certification of Closure

The Permittee shall certify that the facility has been closed in accordance with the specifications in the Closure Plan in Permit Application Section B.13 (MWSU, EODU & HWSU) and Permit Application Section B.14 (MWDU), as required by 40 CFR 264.115.

2.15. GENERAL POST-CLOSURE REQUIREMENTS

2.15.1. Post-Closure Care Period

The Permittee shall begin post-closure care for each landfill after completion of closure of the unit and continue post-closure care for at least 30 years after that date. Post-closure care shall be in accordance with the Post-Closure Plan in Permit Application Section B.14, as required by 40 CFR 264.117.

2.15.2. Amendment to Post-Closure Plan

The Permittee shall amend the Post-Closure Plan, in accordance with 40 CFR 264.118(d), whenever necessary.

2.15.3. Post-Closure Notices

2.15.3.1. No later than 60 days after certification of closure of each hazardous waste disposal unit, the Permittee shall submit records of the type, location, and quantity of hazardous waste disposed of within each cell or disposal unit, in accordance with 40 CFR 264.119(a).

2.15.3.2. Within 60 days of certification of closure of each hazardous waste disposal unit, the Permittee shall submit a request to the Director and the Nevada Division of State Lands to record a notation on the deed (or other instrument normally examined during title search regarding the facility property), in accordance with 40 CFR 264.119(b)(1).

2.15.3.3. The Permittee shall request and obtain a permit modification prior to post-closure removal of hazardous wastes, hazardous waste residues, liners, or contaminated soils, in accordance with 40 CFR 264.119(c).

2.15.4. Certification of Completion of Post-Closure Care

The Permittee shall certify that the post-closure care period was performed in accordance with the specifications in the Post-Closure Plan in Permit Application Section B.14, as required by 40 CFR 264.120.

2.16. FINANCIAL REQUIREMENTS FOR CLOSURE AND POST CLOSURE

The Permittee is exempt from the financial requirements according to 40 CFR 264.140(c).

2.17 COMPLIANCE SCHEDULE

Reserved

3. SUMMARY

The Mixed Waste Disposal Unit (MWDU) is located in the remote southeastern portion of the Nevada National Security Site (NNSS), within the Area 5 Radioactive Waste Management Complex (RWMC). The RWMC includes the Area 5 Radioactive Waste Management Site (RWMS) which is an active disposal site for low level waste. The MWDU is located near the northeastern corner of the RWMC. It consists of two (2) Subtitle C landfill Cells (Cell 18 and Cell 25) with a total design capacity of 62,485 m^3 (81,727 yd^3).

3.1. PERMITTED AND PROHIBITED WASTE IDENTIFICATION

The Permittee may dispose of the following hazardous wastes in Landfill Cell 18 and Landfill Cell 25, subject to the terms of this Permit:

3.1.1. The Permittee may dispose of hazardous wastes as identified in the Part A and Part B of the MWDU application, and other hazardous wastes as identified in NAC 444.843, including wastes containing polychlorinated biphenyls, subject to the terms and limitations of this Permit.

3.1.2. The Permittee is prohibited from disposing of hazardous waste that is not identified in Permit Condition 3.1.1.

3.1.3. The Permittee may dispose a total volume of 25,485 m^3 (33,334 yd^3) of hazardous waste in Landfill Cell 18 and a total volume of 37,000 m^3 (48,394 yd^3) in Landfill Cell 25, subject to the terms of this Permit.

3.2. DESIGN, CONSTRUCTION AND OPERATING REQUIREMENTS

The Permittee shall design, construct, and operate the landfill, under the following conditions:

3.2.1. The Permittee shall install, at a minimum, two liners and a leachate collection and removal system (one above and one between the liners) for the landfill cell, in accordance with the design plans and reports contained in the documents in Permit Attachment 1. [40 CFR 264.301(c)]

3.2.2. The Permittee shall manage collected leachate in accordance with the design plans and reports contained in the documents in Permit Attachment 1, and specifically described in Section B.20.a.9 of the Part B of the MWDU Permit Application.

3.2.3. The Permittee shall design, construct, operate, and maintain a run-on/run-off control system in accordance with the design plans, specifications, and operating practices contained in the documents listed in Permit Attachment 1, and specifically described in Section B.2.b.3 of the Part B of the MWDU Permit Application. [40 CFR 264.301(g)] [40 CFR 264.301(h)]

3.2.4. The Permittee shall empty or otherwise manage run-on and run-off collection and holding facilities to maintain the design capacity of the system in accordance with the design plans and operating practices specified in the documents listed in Permit Attachment 1, and specifically described in Section B.1.b.3 of the Part B of the MWDU Permit Application. [40 CFR 264.301(i)]

3.2.5. The Permittee shall cover or otherwise manage the landfill to control wind dispersal of particulate matter, in accordance with the methods specified in Section B.20.a.8 of the Part B of the MWDU Permit Application. [40 CFR 264.301(j)]

3.3. INSPECTION SCHEDULES AND PROCEDURES

The Permittee shall inspect the landfill in accordance with the following conditions:

3.3.1. The Permittee shall inspect the liners and cover systems during construction and installation for uniformity, damage, and imperfections (e.g., holes, cracks, thin spots, or foreign materials). [40 CFR 264.303 (a)]

3.3.2. The Permittee shall inspect the landfill immediately after construction or installation. [40 CFR 264.303(a)]

3.3.2.1. Synthetic liners and covers must be inspected to ensure tight seams and joints and the absence of tears, punctures, or blisters.

3.3.2.2. Soil-based and admixed liners and covers must be inspected for imperfections including lenses, cracks, channels, root holes, or other structural non-uniformities that may cause an increase in the permeability of the liner or cover.

3.3.3. The Permittee shall inspect the landfill (including the liner and leachate collection system) in accordance with the inspection schedule in Section B.6 of Part B of the MWDU Permit Application. [40 CFR 264.303(b)] The landfill must be inspected after storms to detect evidence of any of the following:

1. Deterioration, malfunctions, or improper operation of run-on and run-off systems;
2. Proper functioning of wind dispersal control systems;
3. The presence of leachate in, and proper functioning of, leachate collection and removal systems.

3.4. CELL LOCATION SURVEYING

The Permittee shall maintain the following items in the operating record: [40 CFR 264.73 and 40 CFR 264.309]

1. A map with the exact location and dimensions (including depth) of each landfill cell with respect to permanently surveyed benchmarks.

2. The types of waste in each landfill cell and the approximate location of each hazardous waste type within each landfill cell.

3.5. CLOSURE AND POST-CLOSURE CARE

The Permittee shall conduct closure and post-closure activities in accordance with the following conditions:

3.5.1. At final closure of the landfill cell, the Permittee shall follow the procedures in the approved closure plan contained in Section B.14 of Part B of the MWDU Permit Application. [40 CFR 264.310(a)]

3.5.2. After final closure, the Permittee shall follow the plans and procedures in the approved Post Closure Care Plan contained in Section B.14 of Part B of the MWDU Permit Application. [40 CFR 264.310(b)]

3.6. SPECIAL LANDFILL PROVISIONS FOR IGNITABLE OR REACTIVE WASTES

3.6.1. The Permittee shall not place ignitable or reactive wastes in the landfill cell.

3.7. SPECIAL LANDFILL PROVISIONS FOR INCOMPATIBLE WASTES

3.7.1. The Permittee shall not place incompatible wastes, or incompatible wastes and materials, in the same landfill cell.

3.8. SPECIAL LANDFILL PROVISIONS FOR LIQUID WASTE

3.8.1. The Permittee shall not knowingly place bulk or non-containerized liquid wastes or waste containing free liquids in a landfill. [40 CFR 264.314(a)]

3.8.2. In situations where the existence of free liquids is a possibility, prior to disposal in the landfill the Permittee shall demonstrate the absence of free liquids in either a containerized or bulk waste by the following test: “Method 9095 (Paint Filter Liquids Test)” as described in “Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods” (EPA Publication No. SW-846). [40 CFR 264.314(b)]

3.8.3. The Permittee shall not place containers holding free liquid in the landfill unless: All free-standing liquid: (i) has been removed by decanting, or other methods; (ii) has been mixed with absorbent or solidified so that free-standing liquid is no longer observed; or (iii) has been otherwise eliminated [40 CFR 264.314(c)]

3.9. SPECIAL REDUCTION REQUIREMENTS FOR EMPTY CONTAINERS

The Permittee shall not dispose of any containers in the landfill unless they are at least 90 percent full when placed in the landfill or they are crushed, shredded, or similarly reduced in volume to the maximum practical extent before placement in the landfill. [40 CFR 264.315]

3.10. COMPLIANCE SCHEDULE

Reserved

4. SUMMARY

The tank storage portion of the MWDU includes two (2) Leachate Storage tanks. The maximum amount and type of waste that may be handled are discussed below in Permit Condition 4.1.

4.1. PERMITTED AND PROHIBITED WASTE IDENTIFICATION

4.1.1. The Permittee may store in tanks 18-T1 and 25-T1 any hazardous waste identified in Part A of the MWDU Permit Application, and other hazardous wastes as identified in NAC 444.843, including Polychlorinated biphenyl (PCB), subject to the terms of this Permit.

4.1.2. The Permittee is prohibited from storing hazardous waste that is not identified in Permit Condition 4.1.1.

4.1.3. The Permittee may store a total volume of 13,000 gallons of hazardous waste in the tanks listed below, subject to the terms of this Permit and as follows:

Table 4.1

Tank ID #	Secondary Containment Required	Cell	Description	Capacity
18-T1	Yes-In Place	18	Leachate Storage Tank	3,000 gallons
25-T1	Yes-In Place	25	Leachate Storage Tank	10,000 gallons
			Total =	13,000 gallons

4.1.4. The Permittee may store hazardous waste for up to one (1) year in any of the storage tanks listed in Table 4.1.

4.2. SECONDARY CONTAINMENT AND INTEGRITY ASSESSMENTS

4.2.1. The Permittee shall design, construct, and operate the secondary containment system(s), in accordance with the detailed design plans and descriptions contained in the MWDU Engineering Report and Specifications Report. [40 CFR 264.193(b)-(f)]

4.2.2. The Permittee shall submit the integrity assessments required under 40 CFR 264.192 to the Director prior to operation of any new tank system

4.3. OPERATING REQUIREMENTS

4.3.1. The Permittee shall not place hazardous wastes in the tank system if they could cause the tank, its ancillary equipment, or a containment system to rupture, leak, corrode, or otherwise fail. [40 CFR 264.194(a)]

4.3.2. The Permittee shall prevent spills and overflows from the tank or containment systems using the methods described in MWDU Permit Application Section B.9. [40 CFR 264.194(b)]

4.3.3. Except as otherwise provided in 261.3 (c)(2)(ii), (g) or (h) any solid waste generated from the treatment, storage, or disposal of a hazardous waste, including any sludge, spill residue, ash emission control dust, or leachate (but not including precipitation run-off) is a hazardous waste. [40 CFR 261.3 (c)(2)(i)]

4.3.4. On an annual basis and/or when the leachate collection tank is at capacity and must be emptied, the permittee will sample and analyze the fluid in the leachate collection tank for contaminants identified in Tables 8.5 through 8.7 of Permit Section 8

4.3.5. The permittee may use collected leachate that does not exceed regulatory levels for any contaminants identified in Table 8.5 of Permit Section 8 for dust suppression within the cell it was generated in.

4.3.6. Should leachate exceed regulatory levels for any contaminants identified in Table 8.5 of Permit Section 8, the leachate will be managed as hazardous waste in accordance with all applicable regulations. The Permittee may treat leachate from the storage tank by an NDEP approved method.

4.3.7. Should sample results from leachate collected in the storage tank exceed regulatory levels for any contaminant identified in Table 8.5, the Permittee will notify NDEP within 10 days of the discovering the exceedance. The notification will include copies of the laboratory report containing the analytical results from the sample which showed the exceedance.

4.3.8. Should tritium concentration in leachate exceed 1,330,000 pCi/L, the leachate <u>may not</u> be used for dust suppression and will be managed in an NDEP approved method.

4.3.9. Leachate Storage Tanks 18-T1 and 25-T1 are RCRA hazardous waste units and will be managed in accordance with applicable regulations at 40 CFR 264.190 et. seq. (Subpart J) including containment and detection of releases, general operating requirements, inspections, response to spills or leaks, closure and post-closure care, special requirements for ignitable, reactive, or incompatible wastes, and air emission standards.

4.3.10. The words, “RCRA Hazardous Waste Tank” will be prominently placed on the Leachate Storage Tank in order to clearly identify it as a regulated and permitted hazardous waste management unit.

4.4. <u>RESPONSE TO LEAKS OR SPILLS</u>

In the event of a leak or a spill from the tank system, from a secondary containment system, or if a system becomes unfit for continued use, the Permittee shall comply with MWDU Permit Application Section B.9.g and remove the system from service immediately and complete the following actions: [40 CFR 264.196(a)-(f)]

4.4.1. Stop the flow of hazardous waste into the system and inspect the system to determine the cause of the release.

4.4.2. Remove waste and accumulated precipitation from the system within 24 hours of the detection of the leak to prevent further release and to allow inspection and repair of the system. If the Permittee finds that it will not be possible to meet this time period, the Permittee shall notify the Director and demonstrate that a longer time period is required.

If the collected material is a RCRA hazardous waste, it must be managed in accordance with all applicable requirements of 40 CFR Parts 262-264. The Permittee shall note that if the collected material is discharged through a point source to U.S. waters or to a Publicly Owned Treatment Works, it is subject to requirements of the Clean Water Act. If the collected material is released to the environment, it may be subject to reporting under 40 CFR Part 302.

4.4.3. Contain visible releases to the environment. The Permittee shall immediately conduct a visual inspection of all releases to the environment and based on that inspection: (1) prevent further migration of the leak or spill to soils or surface water and (2) remove and properly dispose of any visible contamination of the soil or surface water. Close the system in accordance with the Closure Plan in MWDU Permit Application Section B.14 unless the following actions are taken: For a release caused by a spill that has not damaged the integrity of the system, the Permittee shall remove the released waste and make any necessary repairs to fully restore the integrity of the system before returning the tank system to service.

4.4.4. Close the system in accordance with the Closure Plan unless the following actions are taken:

4.4.4.1. For a release caused by a spill that has not damaged the integrity of the system, the Permittee shall remove the released waste and make any necessary repairs to fully restore the integrity of the system before returning the tank system to service.

4.4.4.2. For a release caused by a leak from the primary tank system to the secondary containment system, the Permittee shall repair the primary system prior to returning it to service.

4.4.4.3. For a release to the environment caused by a leak from a component of the tank system that is below ground and does not have secondary containment, the Permittee must provide this component with secondary containment that meets the requirements of 40 CFR 264.193 before the component can be returned to service.

4.4.4.4. For a release to the environment caused by a leak from the aboveground portion of the tank system that does not have secondary containment, and can be visually inspected, the Permittee shall repair the tank system before returning it to service.

4.4.4.5. For a release to the environment caused by a leak from the portion of the tank system that is not readily available for visual inspection, the Permittee shall provide secondary containment that meets the requirements of 40 CFR 264.193 before the component can be returned to service.

4.4.4.6. If the Permittee replaces a component of the tank system to eliminate the leak, that component must satisfy the requirements for new tank systems or components in 40 CFR 264.192 and 264.193.

4.4.5. For all major repairs to eliminate leaks or restore the integrity of the tank system, the Permittee must obtain a certification by an independent, qualified, registered professional engineer that the repaired system is capable of handling hazardous wastes without release for the intended life of the system before returning the system to service. Examples of major repairs are: installation of an internal liner, repair of a ruptured tank, or repair or replacement of a secondary containment vault.

4.5. INSPECTION SCHEDULES AND PROCEDURES

4.5.1. The Permittee shall inspect the tank systems, in accordance with MWDU Permit Application Section B.6, and complete the items in Permit Conditions 4.5.2 and 4.5.3 as part of those inspections.

4.5.2. The Permittee shall inspect the overfill controls. [40 CFR 264.195(a)]

4.5.3. The Permittee shall inspect the following components of the tank system once each operating day: [40 CFR 264.195(b) and (c)]

1. Aboveground portions of the tank system, if any, to detect corrosion or releases of waste;
2. Data gathered from monitoring and leak detection equipment (e.g., pressure or temperature gauges, monitoring wells) to ensure that the tank system is being operated according to its design;
3. Construction materials and the area immediately surrounding the externally accessible portion of the tank system, including the secondary containment system, to detect erosion or signs of releases of hazardous waste (e.g., wet spots, dead vegetation).

4.5.4. The Permittee shall document compliance with Permit Conditions 4.5.1 through 4.5.3 and place this documentation in the operating record for the facility. [40 CFR 264.195(h)]

4.6. RECORDKEEPING AND REPORTING

4.6.1. The Permittee shall report to the Director, within 24 hours of detection, when a leak or spill occurs from the tank system or secondary containment system to the environment. [40 CFR 264.196(d)(1)] (A leak or spill of one pound or less of hazardous waste, that is immediately contained and cleaned-up, need not be reported.) [40 CFR 264.196(d)(2)] (Releases that are contained within a secondary containment system need not be reported). If the Permittee has reported the release pursuant to 40 CFR 302, this report satisfies the requirements of this Permit Condition. [40 CFR 264.196(d)(1)]

4.6.2. Within 30 days of detecting a release to the environment from the tank system or secondary containment system, the Permittee shall report the following information to the Director: [40 CFR 264.196(d)(3)]

1. Likely route of migration of the release;
2. Characteristics of the surrounding soil (including soil composition, geology, hydrogeology, and climate);
3. Results of any monitoring or sampling conducted in connection with the release. If the Permittee finds it will be impossible to meet this time period, the Permittee should provide the Director with a schedule of when the results will be available. This schedule must be provided before the required 30-day submittal period expires;
4. Proximity of down-gradient drinking water, surface water, and populated areas; and
5. Description of response actions taken or planned.

4.6.3. The Permittee shall submit to the Director all certifications of major repairs to correct leaks within seven days from returning the tank system to use. [40 CFR 264.196(f)]

4.6.4. The Permittee shall obtain, and keep on file at the facility, the written statements by those persons required to certify the design and installation of the tank system. [40 CFR 264.192(g)]

4.6.5. The Permittee shall maintain at the facility a record of the results of leak tests and integrity tests conducted, in accordance with 40 CFR 264.192 (d).

4.7. SPECIAL TANK PROVISIONS FOR IGNITABLE OR REACTIVE WASTES

4.7.1. The Permittee shall not place ignitable or reactive waste in the tank system or in the secondary containment system. [40 CFR 264.198(a)]

4.8. SPECIAL TANK PROVISIONS FOR INCOMPATIBLE WASTES

4.8.1. The Permittee shall not place incompatible wastes, or incompatible wastes and materials, in the same tank system or the same secondary containment system. [40 CFR 264.199(a)]

4.8.2. The Permittee shall not place hazardous waste in a tank system that has not been decontaminated and that previously held an incompatible waste or material. [40 CFR 264.199(b)]

4.9. CLOSURE AND POST-CLOSURE CARE

4.9.1. At closure of the tank system(s), the Permittee shall follow the procedures in the Closure Plan, in MWDU Permit Application Section B.14. [40 CFR 264.197(a)]

4.9.2. If the Permittee demonstrates that not all contaminated soils can be practically removed or decontaminated, in accordance with the Closure Plan, then the Permittee shall close the tank system(s) and perform post-closure care in accordance with 40 CFR 264.197(b).

4.10. REPORTING

4.10.1. The Permittee shall submit to the Director the leachate analytical results in accordance with Permit Condition 8.7.2.

5. 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 are managed in the areas noted in the MWSU Permit Application Section B.1. Both liquids and solids managed in containers are accepted and stored while awaiting treatment, disposal, or off-site shipment. The specific management requirements of each area are specified below.

5.1. CONTAINER STORAGE

The container storage areas are identified in MWSU Permit Application Section B.1. The maximum amount and type of wastes that may be handled are discussed below in Permit Condition 5.3.

5.2. CONTAINER-SPECIFIC INFORMATION TO BE MAINTAINED AT THE FACILITY

5.2.1. The Permittee shall maintain at the facility, until closure is completed for all container storage areas and certified by a qualified professional engineer, the following container-specific documents and information and all amendments, revisions and modifications to these documents and information:

5.2.2. A description of the containment systems including:

5.2.2.1. Basic design parameters, dimensions, and materials of construction;

5.2.2.2. How the design promotes drainage or how containers are kept from contact with standing liquids in the containment system;

5.2.2.3. Capacity of the containment system relative to the number and volume of containers to be stored;

5.2.2.4. Provisions for preventing or managing run-on; and

5.2.2.5. How accumulated liquids can be analyzed and removed to prevent overflow.

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

5.2.3.1. Test procedures and results or other documentation or information to show that the wastes do not contain free liquids; and

5.2.3.2. 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.

5.2.3.3. 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.

5.2.3.4. Where incompatible wastes are stored or otherwise managed in containers, a description of the procedures used to ensure compliance with 40 CFR 264.175 (a) and (b), and 264.17 (b) and (c).

5.3. PERMITTED AND PROHIBITED WASTE IDENTIFICATION

5.3.1. The Permittee may store in containers any hazardous waste identified in Part A of the Permit Application, and other hazardous wastes as identified in NAC 444.843, including wastes containing polychlorinated biphenyls, subject to the terms of this Permit.

5.3.2. The Permittee may store hazardous waste in any of the container storage areas listed in Table 5.1 below up to the maximum volume specified:

Table 5.1

CS Areas	Container Storage Area Name	Maximum Volume
1	TRU Pad Cover Building and TRU Pad	17,690 m^3 (624,716 ft^3)
2	Sprung Instant Structure Building	365 m^3 (12,890 ft^3)
3	Visual Examination and Repackaging Building	240 m^3 (8,476 ft^3)
4	Drum Holding Pad	131 m^3 (4,626 ft^3)
Total Storage Capacity		18,426 m^3 (650,708 ft^3)

5.3.3. The Permittee shall not accept or manage any hazardous waste except as defined within the MWSU Permit Application. The MLLW is characterized and identified in Sections B.2 and B.3 of the MWSU Permit Application.

5.3.4. Aisle space shall be maintained as noted in the MWSU Permit Application Section B.8.f and shall be separated by a minimum aisle space of three (3) feet and containers shall be stored no more than two high.

5.3.5. The Permittee shall not store any hazardous waste (whether accepted from off site or generated onsite), which contains free liquids, as determined by the Paint Filter Test (EPA method 9095 in SW 846), in an area that does not have secondary containment.

5.4. 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 MWSU Permit Application Section B.20.a.5. [40 CFR 264.171]

5.5. COMPATIBILITY OF WASTE WITH CONTAINERS

The Permittee shall assure that the ability of the container to contain the waste is unimpaired, as detailed in MWSU Permit Application Section B.20.a.6. [40 CFR 264.172]

5.6. MANAGEMENT OF CONTAINERS

5.6.1. The Permittee shall keep all containers closed during storage or staging, except when it is necessary to visually inspect, 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. [40 CFR 264.173]

5.6.2. The Permittee shall follow the container management practices in MWSU Permit Application Section B.20.a.7.

5.7. CONTAINMENT SYSTEMS

The Permittee shall construct and maintain the secondary containment systems in accordance with MWSU Permit Application Section B.20.a.9 and the requirements of 40 CFR 264.175.

5.8. INSPECTION SCHEDULES AND PROCEDURES

The Permittee shall inspect all container areas in accordance with the Inspection Schedule in MWSU Permit Application Section B.5, to detect leaking containers, improperly labeled containers, deterioration of containers and/or the containment system caused by corrosion and other factors.

5.9. RECORDKEEPING

5.9.1. The Permittee shall place the results of all waste analyses and inspections in the operating record.

5.9.2. The Permittee must document compliance with 40 CFR 264.17(a) and (b) and 264.177 in the facility operating record in accordance with General Facility Condition 2.13.1.1. [40 CFR 264.73]

5.10. SPECIAL CONTAINER PROVISIONS FOR IGNITABLE OR REACTIVE WASTE

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

5.10.2. The Permittee shall take precautions to prevent accidental ignition or reaction of ignitable or reactive waste in accordance with 40 CFR 264.17(a) and 264.176.

5.11. SPECIAL CONTAINER PROVISIONS FOR INCOMPATIBLE WASTE

5.11.1. The Permittee shall not place incompatible wastes, or incompatible wastes and materials, in the same container as required by 40 CFR 264.177(a), unless the Permittee complies with 40 CFR

264.17 (b).

5.11.2. The Permittee shall not place hazardous waste in an unwashed container that previously held an incompatible waste or material as required by 40 CFR 264.177(b).

5.11.3. The Permittee shall separate containers of incompatible wastes as required by 40 CFR 264.177(c).

5.12. CONTAINER LABELING REQUIREMENTS

The Permittee shall comply with the labeling requirements of 40 CFR 262.31-32 and NAC 444.8671.

5.13. CLOSURE

Upon closure of any of the container storage areas, the Permittee shall remove all hazardous waste and hazardous waste residues from the containment system or area, in accordance with the Closure Plan in MWSU Permit Application Section B.13. [40 CFR 264.178]

5.14. COMPLIANCE SCHEDULE

Reserved

6. 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 are managed in the areas noted in the HWSU Permit Application Section B.1. Both liquids and solids managed in containers are accepted and stored while awaiting treatment, disposal, or off-site shipment. The specific management requirements of each area are specified below.

6.1. CONTAINER STORAGE

The container storage areas are identified in HWSU Permit Application Section B.1. The maximum amount and type of wastes that may be handled are discussed below in Permit Condition 6.3.

6.2. CONTAINER-SPECIFIC INFORMATION TO BE MAINTAINED AT THE FACILITY

6.2.1. The Permittee shall maintain at the facility, until closure is completed for all container storage areas and certified by a qualified professional engineer, the following container-specific documents and information and all amendments, revisions and modifications to these documents and information:

6.2.2. A description of the containment systems including:

6.2.2.1. Basic design parameters, dimensions, and materials of construction;

6.2.2.2. How the design promotes drainage or how containers are kept from contact with standing liquids in the containment system;

6.2.2.3. Capacity of the containment system relative to the number and volume of containers to be stored;

6.2.2.4. Provisions for preventing or managing run-on; and

6.2.2.5. How accumulated liquids can be analyzed and removed to prevent overflow.

6.2.3. For container storage areas the Permittee shall maintain the following documentation onsite:

6.2.3.1. 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.

6.2.3.2. 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.

6.2.3.3. Where incompatible wastes are stored or otherwise managed in containers, a description of

the procedures used to ensure compliance with 40 CFR 264.175 (a) and (b), and 264.17 (b) and (c).

6.3. PERMITTED AND PROHIBITED WASTE IDENTIFICATION

6.3.1. The Permittee may store in containers any hazardous waste identified in Part A of the HWSU Permit Application, and other hazardous wastes as identified in NAC 444.843, including wastes containing polychlorinated biphenyls, subject to the terms of this Permit.

6.3.2. The Permittee may store hazardous waste in the container storage area listed in Table 6.1 below up to the maximum volume specified:

Table 6.1

CS Areas	Container Storage Area Name	Maximum Volume
1	Hazardous Waste Storage Unit	61,600 L (16,273 gal)
Total Storage Capacity		61,600 L (16,273 gal)

6.3.3. The Permittee may store hazardous waste for up to one (1) year in container storage area 1 as listed in Table 6.1. The Permittee shall not accept or manage any hazardous waste except as defined within the HWSU Permit Application. The hazardous waste is characterized and identified in Sections B.2 and B.3 of the HWSU Permit Application.

6.3.4. Aisle space shall be maintained as noted in the HWSU Permit Application Section B.8.f and shall be separated by a minimum aisle space of three (3) feet and containers shall be stored no more than two high.

6.3.5. The Permittee shall not store any hazardous waste (whether accepted from off site or generated onsite), which contains free liquids as determined by the Paint Filter Test (EPA method 9095 in SW 846), in an area that does not have secondary containment.

6.4. 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 HWSU Permit Application Section B.20.c. [40 CFR 264.171]

6.5. COMPATIBILITY OF WASTE WITH CONTAINERS

The Permittee shall assure that the ability of the container to contain the waste is unimpaired, as detailed in HWSU Permit Application Section B.20.b. [40 CFR 264.172]

6.6. MANAGEMENT OF CONTAINERS

6.6.1. The Permittee shall keep all containers closed during storage or staging, except when it is necessary to visually inspect, 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. [40 CFR 264.173]

6.6.2. The Permittee shall follow the container management practices in HWSU Permit Application Section B.20.c.

6.7. CONTAINMENT SYSTEMS

The Permittee shall construct and maintain the secondary containment systems in accordance with HWSU Permit Application Section B.20 and the requirements of 40 CFR 264.175.

6.8. INSPECTION SCHEDULES AND PROCEDURES

The Permittee shall inspect all container areas in accordance with the Inspection Schedule in HWSU Permit Application Section B.5, to detect leaking containers, improperly labeled containers, deterioration of containers and/or the containment system caused by corrosion and other factors.

6.9. RECORDKEEPING

6.9.1. The Permittee shall place the results of all waste analyses and inspections in the operating record.

6.9.2. The Permittee must document compliance with 40 CFR 264.17(a) and (b) and 264.177 in the facility operating record in accordance with General Facility Condition 2.13.1.1. [40 CFR 264.73]

6.10. SPECIAL CONTAINER PROVISIONS FOR IGNITABLE OR REACTIVE WASTE

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

6.10.2. The Permittee shall take precautions to prevent accidental ignition or reaction of ignitable or reactive waste in accordance with 40 CFR 264.17(a) and 264.176.

6.11. SPECIAL CONTAINER PROVISIONS FOR INCOMPATIBLE WASTE

6.11.1. The Permittee shall not place incompatible wastes, or incompatible wastes and materials, in the same container as required by 40 CFR 264.177(a), unless the Permittee complies with 40 CFR 264.17 (b).

6.11.2. The Permittee shall not place hazardous waste in an unwashed container that previously held an incompatible waste or material as required by 40 CFR 264.177(b).

6.11.3. The Permittee shall separate containers of incompatible wastes as required by 40 CFR

264.177(c).

6.12. CONTAINER LABELING REQUIREMENTS

The Permittee shall comply with the labeling requirements of 40 CFR 262.30-32 and NAC 444.8671.

6.13. CLOSURE

Upon closure of any of the container storage areas, the Permittee shall remove all hazardous waste and hazardous waste residues from the containment system or area, in accordance with the Closure Plan in HWSU Permit Application Section B.13. [40 CFR 264.178]

6.14. COMPLIANCE SCHEDULE

Reserved

7. SUMMARY

The Permittee operates an explosive detonation unit for the treatment of explosive wastes, which are hazardous wastes as defined under 40 CFR 261.21, 261.23, 261.24, and 261.33. The EODU consists of a detonation pit surrounded by an earthen pad approximately 20 m (65 ft) by 31 m (100 ft) and ancillary equipment. The Permittee is allowed to detonate a maximum of 45.4 kilograms (100 pounds [lbs]) of approved waste at a time, not to exceed one detonation event per hour.

7.1. PERMITTED AND PROHIBITED WASTE IDENTIFICATION

7.1.1. The Permittee may open detonate the following waste explosives, subject to the terms of this Permit as described below

Type of unit: Open detonation area.

Description of unit: Graded area approximately 20 m (65 ft) by 31 m (100 ft) and is free of any magazines or other materials. The detonation area is located on top of a small hill.

7.1.2. The Permittee may treat a maximum (per event, one (1) event per hour) of 45.4 kg (100 lbs) of hazardous waste listed below in Table 7.1, subject to the terms of this Permit and as follows:

Table 7.1

No.	Description of Hazardous Waste	EPA Waste No.
1	Commercially manufactured explosives (capable of detonation as described in 40 CFR 265.382)	D003 – D011
2	Blasting caps	D003 – D011
3	Black powder	D001, D003
4	Smoke pots (hexachloromethane)	D003, D034

7.1.3. Treatment Prohibitions

7.1.3.1. The Permittee is prohibited from treating hazardous waste that is not identified in Permit Condition 7.1.2.

7.1.3.2. The Permittee is prohibited from treating hazardous waste that is generated outside of DOE/NNSA/NFO or DoD (Department of Defense) NNSS activities. The DOE/NNSA/NFO shall keep the NDEP apprised of new DOE/NNSA/NFO and/or DoD activities on the NNSS generating wastes requiring treatment at the EODU, once the wastes have been generated.

7.1.3.3. The Permittee may submit a written request to treat explosives not identified in Table 7.1 (e.g., a Forbidden explosive, as defined in 49 CFR 173.54). The Permittee is prohibited from treating the explosives not identified in Table 7.1 until written approval by the NDEP is received by the DOE/NNSA/NFO.

7.2. DESIGN, CONSTRUCTION, AND OPERATING REQUIREMENTS

7.2.1. Open detonation on an earthen pad

7.2.1.1. The Permittee shall operate and maintain the open detonation area in accordance with the operating procedures contained in the Permit Application.

7.2.1.2. The Permittee shall operate and maintain the open detonation area in order to minimize air emissions or exposure of site personnel to toxic or hazardous emissions in accordance with Sections B.8 and B.20 of the EODU Permit Application.

7.2.1.3. Any residues (i.e., shrapnel, wire, casings) from the treatment of waste explosives visible on or around the detonation pad shall be removed at the next site visit or inspection of the EODU.

7.3. HANDLING AND STORAGE REQUIREMENTS

7.3.1. The Permittee shall handle/manage explosive waste in accordance with Sections B.8 and B.20 of the EODU Permit Application.

7.3.2. The Permittee shall store explosive wastes in accordance with Section B.20 of the EODU Permit Application.

7.4. INSPECTION SCHEDULES AND PROCEDURES

7.4.1. The Permittee shall inspect the EODU, in accordance with EODU Permit Application Section B.5.

7.5. PREVENTION OF UNINTENDED IGNITION OR REACTION OF WASTES

7.5.1. The Permittee shall follow the procedures contained in B.9 of the EODU Permit Application to prevent unintended ignition of wastes.

7.6. MONITORING REQUIREMENTS

7.6.1. The EODU 2015 Soil Characterization Report contained in Exhibit 4 of the EODU Permit Application and pursuant to the EODU Site Characterization Plan as specified in Section B.20.i.2 of the EODU Permit Application is hereby incorporated by reference as the existing site characterization data for the EODU.

7.6.2. The Permittee shall conduct a site characterization every five years over the life of the unit and

before closure of the unit.

7.6.1. The Permittee shall submit to the Director the analytical results for soil characterization by March 31, 2020. The data shall be reported in in a format agreed upon by the Division and permitee.

7.6.2. NDEP will make a determination regarding the applicability of residue management and/or subsurface monitoring based upon the results of the Area 11 EODU site characterization. If at any time, in the opinion of NDEP, residue management and/or subsurface monitoring is required, NDEP will modify the permit to include additional management practices.

7.7. CLOSURE

7.7.1. At final closure of the EODU the Permittee shall follow the procedures in the Closure Plan as described in Section B.13 of the EODU Permit Application.

7.7.2. If after closure the Permittee finds that not all contaminated soils and debris can be removed or decontaminated in accordance with the Closure Plan, then the Permittee shall close the EODU and develop and implement a post-closure plan in accordance with the post closure care requirements of 40 CFR 264.603.

7.8. RECORDKEEPING

7.8.1. The Permittee shall develop and maintain all records required to comply with 40 CFR 264.73 and 264.602.

7.8.2. The Permittee shall maintain a log of all wastes treated at the EODU in the Facility Operating Record. The log shall include a description of each waste treated which meets the 40 CFR 265.382 definition of waste explosive, with a reference to documentation demonstrating the waste meets the definition of a Class 1 Explosive, under 49 CFR Subpart C.

7.9. COMPLIANCE SCHEDULE

Reserved

8. SUMMARY

The Permittee is required to conduct a Groundwater Detection Monitoring Program in compliance with 40 CFR 264.97 and 40 CFR 264.98. The groundwater detection monitoring system includes 3 existing groundwater monitoring wells and two leachate tanks. An additional groundwater monitoring well (downgradient) will be installed within 4 years of the construction and completion of Cell 25. Additional details of the Groundwater Detection Monitoring Program are included in Permit Application Section C.1 Groundwater Monitoring Plan Area 5 Radioactive Waste Management Site.

8.1. POINT OF COMPLIANCE

The Point of Compliance (POC) is a vertical surface located at the hydraulically downgradient limit of the waste management area that extends down into the uppermost aquifer underlying the regulated units. All wells identified herein as POC wells or installed for that purpose subsequent to Permit issuance are considered reflective of the conditions at the Point of Compliance. For the purposes of determining whether the facility complies with the Groundwater Protection Standards established herein. Any exceedance of the Groundwater Protection Standards identified in this section requires compliance with Permit Conditions and 40 CFR 264 Subpart F.

8.2. WELL LOCATION, INSTALLATION AND CONSTRUCTION

The Permittee shall install and maintain a groundwater monitoring system as required by 40 CFR 264.97 and as specified in Permit Application Section C.1, and as summarized below:

8.2.1. Any wells deleted from the monitoring program shall be plugged and abandoned in accordance with NAC 534.420, and shall be decommissioned only upon prior approval of the Director. All well decommissioning methods and certification reports shall be submitted to the Director within 60 days from the date any wells are approved to be removed from the monitoring program.

Table 8-1 Monitoring Wells

Monitoring Well Identification	Designation
UE5PW-3	Background
UE5PW-2	Background
UE5PW-1	POC

8.3. INDICATOR PARAMETERS AND GENERAL WATER CHEMISTRY

The Permittee shall monitor the wells described in Permit Condition 8.2, for the following parameters: *[40 CFR 264.98(a)]*

Table 8-2 Indicator Parameters

Constituent	Investigation Level
TOX	0.1 mg/L [a]
TOC	2 mg/L
pH	<7.6 or >9.2
Specific Conductance	0.440 mmhos/cm [b]
Tritium	2,000 pCi/L [c]

[a] mg/L = milligram(s) per liter
[b] mmhos/cm = millimho(s) per centimeter
[c] pCi/L = picocurie(s) per liter

Table 8-3 Toxicity Characteristic Metals

Constituent	Investigation Level (mg/L)
Arsenic	0.05
Barium	1
Cadmium	0.01
Chromium	0.05
Lead	0.05
Mercury	0.002
Selenium	0.01
Silver	0.05

Table 8-4 General Water Chemistry

Parameter	Analyte
Cations	Calcium
	Iron
	Magnesium
	Manganese
	Potassium
	Sodium
Anions	Bicarbonate
	Sulfate
	Chloride
	Fluoride
	Silicate

8.3.1. All wells shall be sampled biannually, for parameters and constituents listed in Tables 8.2 through 8.4.

8.3.2. Should sample results exceed investigation level for any contaminant identified in Tables 8.2 and 8.3, the Permittee will notify NDEP within 10 days of the discovering the exceedance. The well will be resampled and the analysis repeated within one month of receiving the result.

8.3.3. Should confirmatory sample results exceed investigation level for any contaminant identified in Tables 8.2 and 8.3 the Permittee will notify NDEP within 10 days of the verifying the exceedance. The notification will include copies of the laboratory report containing the analytical results from the sample which showed the exceedance.

8.4. LEACHATE INDICATOR PARAMETERS AND MONITORING CONSTITUENTS

The Permittee shall monitor the Leachate described in Permit Condition 4.3, for the following parameters:

Table 8-5 Toxicity characteristic contaminants (40 CFR 261.24)

Analyte	Regulatory Level (mg/L) [a]
Metals	
Arsenic	5.0
Barium	100
Cadmium	1.0
Chromium	5.0
Lead	5.0
Selenium	1.0
Silver	5.0
Mercury	0.2
Semi-volatiles	
m-Cresol	200[b]
o-Cresol	200[b]
p-Cresol	200[b]
Cresol	200[b]
1,4-Dichlorobenzene	7.5
2,4-Dinitrotoluene	0.13[c]
Hexachlorobenzene	0.13[c]
Hexachlorobutadiene	0.5
Hexachloroethane	3.0
Nitrobenzene	2.0
Pentachlorophenol	100
Pyridine	5.0[c]
2,4,5-Trichlorophenol	400
2,4,6-Trichlorophenol	2.0
Volatiles	
Benzene	0.5
Carbon tetrachloride	0.5
Chlorobenzene	100.0
Chloroform	6.00

Analyte	Regulatory Level (mg/L) [a]
1,2-Dichloroethane	0.50
1,1-Dichloroethylene	0.7
Methyl ethyl ketone	200.0
Tetrachloroethylene	0.7
Trichloroethylene	0.5
Vinyl chloride	0.2
Pesticides	
Chlordane	0.03
Endrin	0.02
Heptachlor	0.008
Lindane	0.4
Methoxychlor	10.0
Toxaphene	0.5
2,4,5-TP (Silvex)	1.0
2,4-D	10.0

[a] mg/L = milligram(s) per liter

[b] If o-, m-, and p-Cresol concentrations cannot be differentiated, the total cresol concentration is used. The regulatory level of total cresol is 200 mg/l.

[c] Quantitation limit is greater than the calculated regulatory level. The quantitation limit therefore becomes the regulatory level.

Table 8-6 Indicator Parameters

Parameter	Investigation Level
PCB	0.0005 mg/L
pH	<6.0 or >9.0
Specific Conductance	10.0 mmhos/cm

Table 8-7 Radiological Parameters

Parameter	Investigation Level
Tritium	400,000 pCi/L

8.4.1. The permittee may use collected leachate that does not exceed regulatory levels for any contaminants identified in Table 8.5 for dust suppression within the cell it was generated in

8.4.2. Leachate tank(s) must be sampled annually and/or before use as dust suppression, for parameters and constituents listed in Tables 8.5 through 8.7.

8.4.3. Should sample results from leachate collected in the storage tank exceed regulatory levels for any contaminant identified in Table 8.5, the Permittee will notify NDEP within 10 days of the discovering the exceedance. The notification will include copies of the laboratory report containing the analytical results from the sample which showed the exceedance.

8.4.4. Should sample results from leachate collected in the storage tank exceed investigation levels for any contaminant identified in Table 8.7 the Permittee will notify NDEP within 10 days of the

discovering the exceedance. The notification will include copies of the laboratory report containing the analytical results from the sample which showed the exceedance.

8.5. SAMPLING AND ANALYSIS PROCEDURES

The groundwater monitoring program must include sampling and analysis procedures that accurately measure hazardous constituents in groundwater and that are designed to ensure monitoring results that provide a reliable indication of the groundwater below the hazardous waste management area. The Permittee shall use the following techniques and procedures when obtaining and analyzing samples from the groundwater monitoring wells and leachate tanks.

8.5.1. Samples shall be collected using the techniques described in the Groundwater Monitoring Plan in MWDU Permit Application Section C-1.

8.5.2. Samples shall be preserved and shipped (when shipped off site for analysis), in accordance with the procedures specified in the Groundwater Monitoring Plan in MWDU Permit Application Section C.1.

8.5.3. Samples shall be analyzed in accordance with the procedures specified in the Groundwater Monitoring Plan in MWDU Permit Application Section C.1.

8.5.4. Samples shall be tracked and controlled using the chain-of-custody procedures specified in the Groundwater Monitoring Plan in MWDU Permit Application Section C.1.

8.5.5. Field sampling equipment shall be calibrated in accordance with the manufacturer's guidelines for each piece of equipment. Manufacturer's guidelines for each field-sampling device shall be maintained at the facility. The calibration data shall be recorded and maintained as part of the operating record of the facility.

8.6. ELEVATION OF THE GROUNDWATER SURFACE

The Permittee shall determine the elevation of the groundwater surface at each well each time the groundwater is sampled, in accordance with 40 CFR 264.97(f).

8.7. RECORDKEEPING AND REPORTING

8.7.1. The Permittee shall enter all field equipment calibration data, monitoring, testing, and analytical data obtained into the operating record.

8.7.2. The Permittee shall submit to the Director the analytical and field data results for groundwater and leachate by March 31. The data shall be reported in graphical, tabular and electronic file format as approved by the Director.

9. SUMMARY

The requirements for this section have superseded by the Federal Facility Agreement and Consent Order (FFACO). The requirements of the FFACO are intended to satisfy the corrective action requirements of RCRA sections 3004(u) and (v) and 40 CFR 264.101. The FFACO, its amendments, and all schedules are hereby incorporated by reference as the schedule for completing corrective actions at the Facility.

9.1. HISTORIC RCRA CORRECTIVE ACTION UNITS

The Permittee has closed the nine corrective action units (CAUs) previously identified for RCRA closure. These nine CAUs have been either "clean closed" with no post-closure monitoring, or have post-closure monitoring requirements, as identified below.

The development and implementation of the closure plans for the Historic RCRA CAUs were discussed between NDEP and the Permittee in conjunction with FFACO.

9.2. AREA 2 BITCUTTER SHOP AND POSTSHOT CONTAINMENT SHOP INJECTION WELLS (CAU 90)

The NDEP concurs the Area 2 Bitcutter and Postshot Containment Shop injection Wells have been closed in accordance with an approved closure plan. Post-closure monitoring shall be conducted as follows:

9.2.1. The Permittee shall conduct a post-closure inspection annually, to include completion of the Post-Closure Inspection Checklist and photographic documentation.

9.2.2. Inspections shall include an evaluation of the condition of the unit and identification of any deficiencies that may compromise the integrity of the unit.

9.2.3. The NDEP shall be notified by the Permittee of any deficiencies requiring a remedy other than general housekeeping issues. Deficiencies shall be remedied within 60 days of discovery and be reported annually to the NDEP.

9.2.4. Annual results of post-closure monitoring activities shall be submitted to the NDEP by May 31st of each reporting year and shall include an executive summary, chronology of events, a copy of inspection checklists, recommendations, and conclusions.

9.3. AREA 3 U-3FI INJECTION WELL (CAU 91)

NDEP concurs that the Area 3 U-3fi Injection Well has been closed in accordance with an approved closure plan. Post-closure monitoring of the Area 3 U-3fi Injection Well will be conducted as follows:

9.3.1. The Permittee shall conduct site inspections annually. The inspections will be conducted in accordance with criteria specified in the U-3fi post-closure plan and checklist.

9.3.2. Annual results of post-closure monitoring activities shall be submitted to the NDEP by May 31st of each reporting year and shall include an executive summary, chronology of events, a copy of inspection checklists, recommendations, and conclusions.

9.4. AREA 6 DECONTAMINATION FACILITY EVAPORATION POND (CAU 92)

The NDEP concurs that the Area 6 Decontamination Facility Evaporation Pond has been closed in accordance with an approved closure plan. Post-Closure monitoring of the Area 6 Decontamination Facility Evaporation Pond RCRA cover is required and shall be conducted as follows:

9.4.1. Post-closure inspections will be done biannually(twice per year) or if precipitation occurs in excess of 2.54 cm (1.0 in) in a 24-hour period. Inspections shall include an evaluation of the Decontamination Pond RCRA cover and identification of any deficiencies that may compromise the integrity of the cover. Inspections shall include the following elements:

- Documenting the reason of the inspection (i.e., biannual, excess precipitation), and any changes in the condition of the cover or fenced area. The changes may include, but are not limited to, trash/debris within the fenced area, erosion of or vegetation growing on the cover, and animal burrowing/nesting activity.

- Inspecting and documenting the condition of the RCRA cover perimeter fencing, warning signs, entrance gate, and lock.

- Evaluating the condition of the RCRA cover: Small cracks or settling imperfections greater than 5 cm (2 in) deep on the cover shall be documented and scheduled for repair on an annual basis. Larger disruptions of the cover will be immediately evaluated and remedied within 60 days of discovery and shall be reported immediately to NDEP.

9.4.2. Repair work shall preserve the original RCRA cover “as-built” design. If the cover repair requires the modification of the RCRA cover design, the Permittee shall present a formal design modification request to NDEP prior to making the design modification.

9.4.3. Results of the annual post-closure monitoring activities shall be submitted to NDEP by May 31st of each year and shall include an executive summary, chronology of events, a copy of the inspection checklists, recommendations, and conclusions.

9.5. AREA 6 STEAM CLEANING EFFLUENT PONDS (CAU 93)

The NDEP has issued a "Clean Closure" and no further action letter for the Steam Cleaning Effluent Ponds on February 20, 1998.

9.6. AREA 23 BUILDING 650 LEACHFIELD (CAU 94)

The NDEP has issued a "Clean Closure" and no further action letter for the Area 23 Building 650 Leachfield on November 3, 1998.

9.7. AREA 2 U-2BU SUBSIDENCE CRATER (CAU 109)

The NDEP has issued a letter concurring that closure was completed meeting the conditions of 40 CFR 270.l(c)(5) and (6) for "closure by removal equivalency" under 40 CFR 264.280(e). The total petroleum hydrocarbon in soil at the bottom of the crater was found at a maximum concentration of 190 mg/kg and does not require remediation based on NAC 445A.227. The final approval for the Closure Report on the Area 2 U-2bu Subsidence Crater was issued by the NDEP on January 25, 2000.

9.8. AREA 3 U3AX/BL SUBSIDENCE CRATER (CAU 110)

NDEP concurs that the Area 3 U-3ax/bl Subsidence Crater has been closed in accordance with an approved closure plan. Post-closure monitoring of the Area 3 U-3ax/bl will be conducted as follows:

9.8.1. Post-closure inspections will be done biannually and will consist of visual observations to check that the cover is intact. Each site inspection will be documented on a site inspection form. Post-closure inspections will consist of the following elements:

- A detailed inspection of the cover fencing. The perimeter of the fencing will be walked by the inspector and the condition of the fencing, warning signs, and entrance gate and lock will be documented.

- The condition of the seven subsidence survey markers will be inspected. In addition, on a biennial (every two years) basis, all seven survey markers will be resurveyed to determine if the cover has subsided.

- During each inspection, any changes in the condition of the cover or fenced area will be documented. Specific changes noted on the current condition of the cover include, but are not limited to, trash/debris within the fenced compound, animal burrows/nesting activity, or erosion of the cover.

- All repair work should preserve the original cover "as-built" design. If the cover repair requires modification of the cover design, NNSA/NSO will present a formal design modification request to the NDEP prior to making the design modification.

- The U-3ax/bl subsidence crater cover is designed to limit infiltration into the disposal unit and is monitored using Time Domain Reflectometry (TDR) soil water content sensors buried at various depths within the waste cover to provide water content profile data. The soil water content profile data is used to demonstrate whether the cover is performing as expected. Cover monitoring at the U-3ax/bl subsidence crater shall be conducted as follows:

    a. TDR probes are buried in the cover at depths of 0.3 to 2.4 m (1 to 8 ft), one probe every 0.3 m (1 ft).
    b. TDR probes are installed at a distance of 36.5 in (120 ft) from the edge of the cover.
    c. A profile of eight probes (a stack) was repeated at four locations across the cover.
    d. Moisture content data from TDR moisture probes are recorded on a daily basis and stored on a data logger.
    e. The data are downloaded periodically using a radio to intranet connection.

- The U-3ax/bl subsidence crater boundary is defined by the fence installed around the cover that encloses the approximately 3-hectare (7.5-acre) site. The point of compliance is the depth of the deepest TDR soil moisture probe.

- Notify NDEP within 14 days of determining that the averaged water content of the three deepest TDR probes (6 ft., 7 ft., and 8 ft.) is greater than 32 percent volumetric moisture content for a continuous 6-month period.

- A listing of noncritical (cracks or settling imperfections equal to or less than 15 cm [6 in] deep on the cover) maintenance requirements will be compiled during the inspection period and addressed in the following inspection period.

- Cracks or settling imperfections greater than 15 cm (6 in) deep that extend 1.0 m (3 ft) or more on the cover (through animal burrows, erosion, or subsidence) will be evaluated and repaired within 60 days of detection.

- Results of the post-closure monitoring activities shall be submitted annually by the Permittee to NDEP. An annual letter report will be provided on or before May 31st of each year of the post-closure inspection period. The annual letter report will include the following information:

    a. A brief narrative and pictures from post-closure inspection activities.
    b. U-3ax/bl subsidence crater cover inspection logs.
    c. Moisture content profiles through the previous year.
    d. Specific recommendations for nonstandard maintenance or changes in post-closure monitoring.

9.9. AREA 5 RETIRED MIXED WASTE PITS AND TRENCHES (CAU 111)

The NDEP concurs that the Area 5 Retired Mixed Waste Pits and Trenches has been closed in accordance with an approved closure plan. Post-Closure monitoring of the Area 5 Retired Mixed Waste Pits and Trenches will be conducted as follows:

- Quarterly visual site inspections for cracks, animal burrows, subsidence, erosion, and UR Compliance Additional inspections for ponding and erosion after precipitation events in excess of 1.0 inch in a 24-hour period.
- Annual land surveys of subsidence survey monuments.
- Annual survey by an ecological specialist or biologist.
- Quarterly measurements from TLDs.
- Atmospheric moisture samples collected every 2 weeks and analyzed for Tritium monthly.
- Air samples composited and submitted quarterly for laboratory analysis of gamma-emitting and isotopic radionuclides.
- Annual measurements of radon emissions.
- Water levels in three existing wells measured quarterly and groundwater samples analyzed for contamination indicators and water chemistry parameters every 6 months.
- Precipitation, air temperature, relative humidity, wind speed and direction, and barometric pressure recorded daily.
- TDR probe and lysimeter data downloaded periodically using a radio to intranet connection.

9.9.1. Annual results of post-closure monitoring activities shall be submitted to the NDEP by May 31st of each reporting year and shall include an executive summary, chronology of events, a copy of inspection checklists, recommendations, and conclusions.

9.10. AREA 23 HAZARDOUS WASTE TRENCHES (CAU 112)

NDEP concurs that the Area 23 Hazardous Waste Trenches have been closed in accordance with an approved closure plan. Post-closure monitoring of the Area 23 Hazardous Waste Trenches will be conducted as follows:

9.10.1. Physical site inspection will be conducted annually. Inspections will include an evaluation of the condition of the unit and identification of any deficiencies that may compromise the integrity of the unit. An annual report of post-closure monitoring activities will be submitted to NDEP by May 31st of each year and will include copies of the inspection checklists.

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

1. Engineering Report for Cell 18, Revision 0, June 2010, Andrews Engineering, Inc.
2. Specifications for Cell 18, Revision 0, June 2010, Andrews Engineering, Inc.
3. RCRA Part A Permit Application for Waste Management Activities at the Nevada National Security Site, April 2017.
4. RCRA Part B Permit Application for Waste Management Activities at the Nevada National Security Site, April 2017.
5. Report of Construction Quality Assurance NNSS - Area 05A, Radioactive Waste Management Complex, Mixed Waste Disposal Unit Cell 25, March 2018
6. Federal Facilities Agreement and Consent Order, March 1996 (as amended), including all amendments and schedules contained therein.
7. Agreement in Principle, June 2016, including all attachments contained therein.
8. Engineering Report for Cell 25, Revision 0, November, 2016, CTI and Associates, Inc.
9. Construction Specifications for Cell 25, Revision 0, November, 2016, CTI and Associates, Inc.