

## **PERMIT PART 2 GENERAL FACILITY REQUIREMENTS**

### **2.1 DESIGN, CONSTRUCTION, MAINTENANCE, AND OPERATION OF THE FACILITY**

The Permittees shall design, construct, maintain, and operate the Permitted Units to minimize the possibility of a fire, explosion, or any sudden or non-sudden release of hazardous or mixed waste or hazardous waste constituents to air, soil, sediment, groundwater, or surface water which could threaten human health or the environment, as required by 40 CFR § 264.31.

### **2.2 WASTE SOURCES**

#### **2.2.1 Permitted Waste**

The Permittees shall treat, store, or both, only those hazardous and mixed wastes specified in Part 3 (Storage of Hazardous and Mixed Waste), Part 4 (Treatment of Hazardous and Mixed Wastes) and 5 (Treatment by Open Burning), and Attachment B (Authorized Wastes) of this Permit. No wastes shall be managed at the CAMU except waste generated by post-closure care activities conducted at the CAMU and the Chemical Waste Landfill.

#### **2.2.2 Hazardous and Mixed Waste from Foreign Sources**

The Permittees shall not accept, store, treat, or otherwise manage at permitted units at the Facility hazardous and mixed wastes from foreign sources.

#### **2.2.3 Hazardous and Mixed Waste from Off-site Sources**

The Permittees may accept, store, treat or otherwise manage at the permitted units at the Facility, only the following hazardous or mixed wastes from off-site sources.

1. Treatment-derived waste or residues from wastes generated at the Facility, sent off site for treatment at off-site facilities, and subsequently returned to the Facility prior to final disposition off-site may be managed at the Facility only subject to the following conditions:
  - a. for wastes with no available site for final disposal, the Permittees shall provide written notice in accordance with Permit Section 1.14.1, either through mailing of a hard copy letter or via electronic mail that will be followed by submittal of a hard copy letter, to the Department that there is no available site for final disposal within five days of receipt of the treatment-derived waste or waste residues at the Facility; or
  - b. for wastes with an available final disposal path, the Permittees shall not store the wastes for more than 90 days prior to shipping the wastes off-site.
2. Waste generated by the Permittees as a result of investigation or remediation of a solid waste management unit (SWMU) or area of concern (AOC) listed in Attachment K

(Listing of SWMUs and AOCs) and Table K-1 (SWMUs and AOCs Requiring Corrective Action).

3. Wastes from Sandia National Laboratories operations located within the metropolitan Albuquerque area.

The Permittees shall receive from off-site sources under this permit section 2.2.3 only the hazardous or mixed wastes listed in Permit Attachment B (Authorized Wastes) for treatment and storage at the Permitted Units.

#### **2.2.4 Restrictions on PCB-Contaminated Waste**

The Permittees are prohibited from storing liquid hazardous or mixed wastes containing polychlorinated biphenyls (PCBs) at concentrations equal to or greater than 50 parts per million (ppm) unless such storage is in compliance with all requirements of 40 CFR § 761.65(b). The Permittees are prohibited from storing liquid hazardous or mixed wastes containing PCBs at concentrations greater than 50 ppm for more than one year from the date such waste was first placed into storage, pursuant to 40 CFR § 268.50(f).

### **2.3 LAND DISPOSAL RESTRICTIONS**

The Permittees shall comply with the requirements of 40 CFR Part 268. The Permittees are prohibited from treatment and storage of hazardous or mixed wastes restricted from land disposal as specified in 40 CFR Part 268, unless the requirements of 40 CFR Part 268, Subpart E, are met.

Pursuant to 40 CFR § 268.7, the Permittees shall determine if a hazardous or mixed waste managed under this Permit must be treated before it may be land disposed in accordance with 40 CFR §§ 268.40, 268.45, 268.48, and 268.49. The Permittees shall make this determination in one or both of the following ways, as appropriate:

1. Testing the waste for either total constituent concentrations for the hazardous constituents of concern or the concentrations of hazardous constituents in an extract of the waste using Test Method 1311, depending upon whether the treatment standard for the waste is expressed as a total constituent concentration or the concentration of the constituent in the waste extract.
2. Using Acceptable Knowledge of the waste.

#### **2.3.1 Prohibition on Dilution or Aggregation as a Substitute for Treatment**

In accordance with 40 CFR § 268.3, the Permittees shall not dilute a waste that is restricted from land disposal or the residue from treatment of a restricted waste. Dilution to avoid an applicable treatment standard includes, but is not limited to, the addition of solid waste to reduce a hazardous constituent's concentration and ineffective treatment that does not destroy, remove, or permanently immobilize hazardous constituents. The Permittees shall not aggregate a waste that is restricted from land disposal with other waste or materials as a substitute for compliance with 40 CFR § 268.3. Aggregating or mixing wastes as part of a legitimate treatment process is not considered impermissible dilution for purposes of complying with this Permit.

### **2.3.2 Documentation of Exclusion or Exemption**

Pursuant to 40 CFR § 268.7(a)(7), the Permittees shall place a one-time notice in the Facility Operating Record for any land disposal prohibited wastes that the Permittees determine are excluded from the definition of hazardous or solid waste or determine are exempted from Subtitle C regulation under 40 CFR §§ 261.2 through 261.6 subsequent to the point of generation. Exemptions required to be documented include, but are not limited to, hazardous waste managed in wastewater treatment systems subject to the Clean Water Act (CWA) as specified at 40 CFR §§ 264.1(g)(6) and 260.10. The Operating Record shall include in this documentation a description of the process that generated the waste, the justification for its exemption or exclusion, and a description of the final disposition of the waste.

The Permittees shall not place in any land disposal unit the wastes specified in 40 CFR Part 268 after the effective date of the prohibition unless the Department has established disposal or treatment standards for the hazardous or mixed waste and the Permittees meet such standards and other applicable conditions of this Permit. Notwithstanding the foregoing, the Permittees may land dispose hazardous or mixed waste restricted by 40 CFR Part 268 which does not meet treatment standards if a variance from the treatment standards has been granted by the Department pursuant to 40 CFR §§ 268.44.

## **2.4 WASTE ANALYSIS**

### **2.4.1 General Waste Characterization Requirements**

The Permittees shall accept, store, treat, or otherwise manage at the Permitted Units at the Facility only those hazardous wastes and mixed wastes that have been characterized in accordance with 40 CFR § 264.13, the requirements of this Permit Part, and Permit Attachment C (Waste Analysis Plan).

At a minimum, the Permittees must obtain and document all of the necessary information that must be known to manage a hazardous or mixed waste in accordance with 40 CFR Parts 264, this Permit Part, and Permit Attachment C (Waste Analysis Plan), including but not limited to:

1. Applicable EPA hazardous waste numbers
2. Waste characterization necessary to prevent the mixing or placing of incompatible wastes in the same container (*see* 40 CFR § 264.17 and § 264.177) and to prevent the impairment of containers. (*See* 40 CFR § 264.172);
3. Waste characterization necessary to prevent accidental or spontaneous ignition or reaction of ignitable or reactive wastes, including, but not limited to, ignition or reaction in containers. (*See* 40 CFR § 264.17 and 40 CFR § 264.177);
4. Whether the waste contains free liquids; and
5. A description of the waste generation process that includes material inputs, or other information, as needed to determine hazardous waste codes and physical form of the waste.

The Permittees shall obtain and document the following additional information as needed to treat a hazardous or mixed waste in accordance with 40 CFR Part 268:

1. Applicable additional EPA hazardous waste numbers
2. Waste characterization necessary to determine whether the waste is prohibited from land disposal, including applicable underlying hazardous constituents and treatment requirements under 40 CFR §§ 268.40, 268.45 and 268.49 for treatment that will be performed at the Permitted Units.

The Permittees shall characterize waste by using sampling and analysis methods that are specified in SW-846, or approved by the Department, acceptable knowledge, or a combination of the two. When acceptable knowledge is insufficient to fully characterize a waste for management at a Permitted Unit, the Permittees shall utilize sampling and analysis to complete that characterization.

The Permittees shall maintain all waste characterization information in the Facility Operating Record. For records that contain waste characterization information concerning any hazardous or mixed wastes managed under this Permit, which are required to be archived elsewhere at the Facility (e.g., laboratory record books), the Permittees shall maintain a traceable identifier to this documentation or use another method to facilitate access to the information by the Permittees and the Department (*see* 40 CFR § 270.32(b)(2)). The Permittees shall maintain waste characterization documentation in accordance with the record retention requirements in Permit Section 2.14.4.

#### **2.4.2 Sampling and Analysis for Hazardous and Mixed Wastes**

The Permittees shall perform all sampling and analytical procedures used for waste characterization in accordance with Permit Attachment C, the most recent version of *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods* (U.S. EPA Publication SW-846), or an equivalent method which has received prior written approval from the Department in accordance with 40 CFR § 260.21.

The Permittees shall ensure that samples collected and analyzed for waste characterization are representative of both the nature and the entire volume of the waste under consideration.

The Permittees shall ensure that the sampling and analytical procedures used preserve each sample in its original physical form and composition and ensure prevention of contamination or changes in concentration of the constituents to be analyzed.

The Permittees shall identify, collect or prepare, and analyze the appropriate number of quality control samples associated with each sample collected (including trip and field blanks, field duplicates, and field spikes). When performing laboratory analysis required under Section 2.4.2 of this Permit Part (2), the Permittees shall analyze the appropriate number of method blanks, laboratory duplicates, and other laboratory control samples to assess the quality of the data generated. The Permittees shall maintain a record of these quality assurance procedures and results in the Facility Operating Record, as required under 40 CFR § 264.73 and Permit Section 2.14.2.

If the Permittees use an independent contract laboratory to perform waste analyses, the Permittees shall require the analytical laboratory to conduct such analyses in accordance with the waste analysis conditions set forth in this Permit.

When using laboratory analysis to characterize an unknown waste for which no information is available concerning its chemical makeup or origin, the Permittees shall require the laboratory to report concentrations of all hazardous constituents listed at 40 CFR § 268.48, Table UTS, that the analytical test method used is capable of measuring, as specified at the most recent version of the U.S. EPA's Test Methods for Evaluating Solid Wastes (SW-846). (See 40 CFR § 270.32(b)).

When using laboratory analyses to determine whether a waste meets its applicable Land Disposal Restrictions (LDR) treatment standard concentrations specified in 40 CFR § 268.40, Treatment Standards for Hazardous Wastes, in compliance with 40 CFR §§ 268.7(a) and (b), the Permittees shall ensure that the analytical method detection limits are appropriate for making such a determination. (See 40 CFR § 270.32(b)).

### **2.4.3 Acceptable Knowledge**

If the Permittees use Acceptable Knowledge for waste characterization, the Permittees shall include in the Acceptable Knowledge documentation all of the background information assembled and used in the characterization process. Acceptable Knowledge documentation must be maintained in writing or in an electronic format in the Facility Operating Record. Acceptable Knowledge records must document the resolution of any data discrepancies between Acceptable Knowledge sources. When Acceptable Knowledge is insufficient to characterize a waste, the Permittees shall perform the necessary sampling and analysis to characterize the waste in accordance with Section 2.4.1 of this Permit Part.

The Permittees shall assign a traceable identification number to this documentation to facilitate access to this information by the Permittees and the Department for as long as required under Permit Section 2.14.2 of this Permit Part.

### **2.4.4 Waste Characterization Review**

The Permittees shall ensure that the initial characterization of any hazardous or mixed waste is reviewed or repeated according to the frequency established in Sections C-3 and C-4 of Permit Attachment C (Waste Analysis Plan) to verify that characterization is accurate and up-to-date, as required by 40 CFR § 264.13(b)(4). The Permittees shall also:

1. Annually review the characterization of ten percent by volume of the hazardous and mixed wastes to verify that the characterization is accurate.
2. Recharacterize a hazardous or mixed waste whenever there is a change in waste-generating processes that may affect the physical or chemical properties, listed status of the waste, or the land disposal restriction status of the waste.
3. Recharacterize a hazardous or mixed waste whenever the Permittees are notified by an off-site facility that has received a hazardous or mixed waste from the Facility that the characterization of the waste received at the off-site facility does not match a pre-approved waste analysis certification or accompanying waste manifest or shipping paper.

Waste characterization reviews shall be documented in the Operating Record.

#### **2.4.5 Wastes Received from Off-Site**

If a hazardous or mixed waste is received at the Facility from an off-site source identified at Permit Section 2.2.3, the Permittees shall obtain waste characterization information from the source. If acceptable knowledge is used for the waste characterization, the Permittees shall require the source to provide all acceptable knowledge documentation used to characterize the waste (*see* 40 CFR § 270.32(b)(2)). In addition, the Permittees shall ensure that all applicable waste characterization requirements specified in Permit Section 2.4.1 have been met and documented.

The Permittees shall ensure that the waste matches the identity of the waste designated on the accompanying manifest or shipping paper. If discrepancies between the waste received from an off-site treatment facility and the information on the manifest are found, the Permittees shall comply with the requirements of 40 CFR § 264.72 to resolve the discrepancies.

#### **2.4.6 Treatment-Derived Waste**

The Permittees shall characterize treatment-derived wastes generated onsite by determining whether the waste is a hazardous or mixed waste in compliance with the requirements of Permit Section 2.4.1 of this Permit Part, 40 CFR § 268.7(b) and Permit Attachment C (Waste Analysis Plan), and in compliance with the notification and record-keeping requirements specified in 40 CFR § 268.7(b)(3)(ii), Treatment Facility Paperwork Requirements Table.

#### **2.4.7 Procedures to Ensure Compliance with LDR Requirements**

The Permittees shall comply with LDR requirements for wastes through compliant management of wastes subject to LDR storage prohibitions, and through characterization of treated waste for LDR compliance, and processing of the applicable LDR certifications and notifications for such treated wastes.

#### **2.4.8 Characterization of Wastes Generated Through Treatment of Hazardous or Mixed Wastes for LDR Compliance**

Hazardous or mixed wastes generated through treatment at the Permitted Units (e.g., treated waste, treatment residue) shall be characterized as required by the off-site TSDF receiving the waste to determine whether it meets the applicable LDR treatment and in accordance with the requirements of this Permit.

Waste that must meet concentration-based treatment standards prior to shipment off-site for disposal shall be evaluated by the Permittees to determine if applicable constituent concentration levels have been attained, as described in Section C.3.1. If a waste must be treated by one or more specified treatment methods (e.g., macroencapsulation) prior to land disposal, analytical testing to certify LDR compliance for the waste before treatment may not be necessary, as described in Section C.3.4.5.

If acceptable knowledge or use of a specified treatment technology is not appropriate for determining LDR compliance status, the treated waste or treatment residue shall be sampled and analyzed to determine if it meets LDR treatment standards. The analysis shall determine the total concentration of hazardous waste constituents in the waste, or the concentrations of hazardous waste constituents in an extract of the waste obtained using Test Method 1311 in SW-

846, as appropriate. Analytical results obtained in compliance with LDR requirements shall be retained within the Unit Operating Record. Characterization of treatment waste and treatment residues for LDR compliance will include hazardous waste constituents that were introduced as part of the treatment process, as discussed in Section C.3.4.3.

For wastes generated through treatment at one of the Permitted Units, the Permittees shall comply with the applicable requirements of 40 CFR § 268.7(b), § 268.40, and § 268.49. Hazardous and mixed wastes treatment residues and treated wastes that are determined through characterization to meet the applicable treatment standards will be sent to a permitted TSDF for disposal without further treatment. Wastes that have been generated through treatment using technologies specified in 40 CFR § 268.42 and § 268.44 shall also be sent to a permitted TSDF for disposal without further treatment. Treatment residues that do not meet all of the applicable treatment standards shall undergo further treatment at a Permitted Unit or be sent to a permitted TSDF for further treatment prior to land disposal.

Whenever the Permittees send waste to an off-site TSDF for treatment or disposal as described above, it shall be in accordance with that facility's waste acceptance criteria. For treated wastes and treatment residues, the Permittees shall review the LDRs as they relate to the further treatment or disposal of the treated waste or treatment residues at the TSDF that intends to accept the waste. Part of this review includes evaluating the waste for UHCs and Universal Treatment Standards, and documenting the results of the evaluation as part of the certification process. UHCs must be declared if reasonably expected to be present in D001 through D043 wastes. The Permittees shall complete an appropriate LDR notification form (including signed certification) that accompanies the Uniform Hazardous Waste Manifest as part of the shipping documentation to the TSDF. Records shall be maintained at the Facility as discussed in Section 2.14.2 Permit Part 2. The Permittees shall obtain approval from the TSDF and meet TSDF-specific waste analysis requirements (including LDR requirements) prior to shipment.

#### **2.4.9 Waste Characterization for Compliance with RCRA Air Emission Requirements**

The Permittees shall characterize hazardous wastes subject to emission controls in accordance with this Permit Section 2.4 (Waste Analysis) and Attachment C (Waste Analysis Plan).

The Permittees shall characterize hazardous wastes managed in containers to determine the average volatile organic compound (VOC) concentration relative to 500 parts per million by weight (ppmw) at the point of waste origination in compliance with 40 CFR Part 264, Subpart CC. The Permittees shall determine the average VOC concentration either by utilizing acceptable knowledge or by using the procedures specified in 40 CFR § 264.1083(a). The Permittees shall review and update this determination at least once every 12 months following the date of the initial determination in compliance with 40 CFR § 264.1082(c)(1).

The Permittees shall not be required to characterize the waste for its average VOC concentration in the following circumstances.

1. The container is used solely for management of mixed waste in accordance with all applicable regulations under the Atomic Energy Act and the Nuclear Waste Policy Act. (*See* 40 CFR § 264.1080(b)(6)); or

2. The container storing the wastes has a total capacity of less than 0.1 cubic meter (approximately 26 gallons). (*See* 40 CFR § 264.1080(b)(2)).

The Permittees shall not be required to determine the average VOC concentration of wastes if control of air pollution emissions from containers is achieved utilizing the container construction specifications and operation requirements specified in 40 CFR § 264.1086(b).

## **2.5 WASTE MINIMIZATION PROGRAM**

The Permittees shall implement and maintain a waste minimization program to reduce the volume and toxicity of hazardous and mixed wastes generated at the Facility (*see* 40 CFR § 264.73(b)(9)). The waste minimization program shall include proposed, practicable methods of treatment and storage currently available to the Permittees to minimize the present and future threat to human health and the environment. The Waste Minimization Program shall include the following items:

1. Plan for reducing the volume and toxicity of hazardous and mixed waste at the Facility and recycling of hazardous and mixed waste at the Facility;
2. Employee training designed to identify and implement source reduction and recycling opportunities for all hazardous and mixed wastes;
3. Waste minimization and recycling implemented over the last year and additional waste minimization efforts that could be implemented at the Facility in the next federal fiscal year; and
4. Estimated costs devoted to waste minimization and recycling of hazardous and mixed waste.

The Permittees shall submit to the Department a report regarding progress made in the waste minimization program in the previous year. The report shall address items (1)-(4) above, shall show changes from the previous report, and shall be submitted annually by December 15 for the previous fiscal year ending September 30th.

## **2.6 DUST SUPPRESSION**

The Permittees shall not use waste or used oil or any other material, which is contaminated with dioxin nor any other hazardous or mixed waste (other than a waste identified solely on the basis of ignitability), for dust suppression or road treatment (*see* 40 CFR § 266.23(b)). In addition, the Permittees shall not use waste or used oil or any other material contaminated with PCBs in this manner.

## **2.7 SECURITY**

### **2.7.1 Barriers and Means to Control Entry**

The Permittees shall prevent the unknowing entry and minimize the possibility for the unauthorized entry of persons or livestock onto the permitted units at the Facility. (*See* 40 CFR § 264.14).



The Permittees shall ensure the permitted units' security by implementing the following measures:

1. 24-hour surveillance system continuously monitoring and controlling entry into the permitted units at the Facility; or
2. Controlled entry into the permitted units at all times via gates, stations, or other means (e.g., attendants, locks, prohibited or controlled roadway access).

The Permittees shall maintain and ensure the effectiveness of all security fences, entry gates, and entry stations surrounding the permitted units as specified in Figures 4, 10, 16, 21-B, 26 and 32 in Permit Attachment L (Figures).

### **2.7.2 Warning Signs**

The permanent perimeter fence surrounding each permitted unit and the entrance to the unit shall be posted with "Danger: Unauthorized Personnel Keep Out" signs (or signs with equivalent language). The signs shall state the warning in English and Spanish, shall be legible from a distance of 25 feet, and shall be visible from any approach to each Permitted Unit. (See 40 CFR § 264.14(c)).

## **2.8 GENERAL INSPECTION REQUIREMENTS**

The Permittees shall inspect all the permitted units for malfunctions, deterioration, operator errors, and discharges which has caused or may lead to:

1. A release of hazardous or mixed waste constituents to the environment; or
2. A threat to human health or the environment.

(See 40 CFR § 264.15(a)).

Inspections shall be conducted of all waste management structures, base materials, containers, monitoring equipment, safety and emergency equipment, security devices, and operating equipment that are important in preventing, detecting, and responding to environmental or human health hazards associated with hazardous or mixed wastes. (See 40 CFR §§ 264.15(b)(1) and (b)(4)).

The Permittees shall implement the inspection program for the permitted units in compliance with the operating schedule, recordkeeping, and response action commitments in Attachment E (Inspection Plan).

The Permittees shall maintain Attachment E (Inspection Plan) at the administrative office of all applicable permitted units or at the permitted unit. The Permittees' ability to access an electronic version of this Permit's inspection requirements at the above locations shall be deemed to satisfy this Permit condition.

### **2.8.1 Inspection Schedule**

The Permittees shall conduct inspections to identify problems in time to correct them before they harm human health or the environment (see 40 CFR § 264.15(a)). The Permittees shall inspect

the permitted units and all associated structures and equipment, in compliance with the inspection schedules contained in Attachment E (Inspection Plan).

### **2.8.2 Repair of Equipment and Structures**

The Permittees shall remedy any deterioration or malfunction of equipment or structures discovered during an inspection on a schedule which ensures the problem does not lead to an environmental or human health hazard. (See 40 CFR §§ 264.15(c)).

### **2.8.3 Inspection Logs and Records**

The Permittees shall record the results of each inspection conducted in accordance with Permit Section 2.8 and Attachment E. At a minimum, the Permittees shall produce a record of the date and time of the inspection, an identification of the permitted unit and associated structures or equipment, the name and signature of the inspector, a notation of the observations made, and the date and nature of any repairs or other remedial actions taken (see 40 CFR § 264.15(d)). The Permittees shall ensure that these records are clearly legible, all handwritten information is in ink, and errors are crossed out with a single line, initialed, and dated by the individual making the correction. The records shall be retained for the period of time specified in Permit Section 2.14.2.

The Permittees shall record the following observations or actions in the Facility Operating Record:

1. The results of any preventive maintenance activities including, but not limited to, maintenance on floors, secondary containment structures, unit drainage structures, and fire protection equipment at a permitted unit;
2. Any malfunctions and deterioration of such structures or equipment;
3. Any errors potentially affecting waste containment or compliance with this Permit;
4. The locations, dimensions, and repairs of all identified cracks or gaps in floors or base materials;
5. Any discharges of hazardous or mixed waste, hazardous constituents, or fire suppression systems at a permitted unit; and
6. Any occurrences that might cause or exacerbate contamination of a permitted unit.

The Permittees shall maintain inspection logs in the Facility Operating Record as specified in Permit Section 2.14.2.

## **2.9 PERSONNEL TRAINING**

The Permittees shall ensure that all Facility personnel who are involved in hazardous or mixed waste management activities regulated under this Permit successfully complete all training programs in compliance with the training requirements of 40 CFR § 264.16, as well as the training requirements in Attachment F (Personnel Training Plan).

## **2.10 SPECIAL REQUIREMENTS FOR IGNITABLE, REACTIVE, OR INCOMPATIBLE WASTE**

The Permittees shall comply with the requirements of 40 CFR §§ 264.17, 264.176, and 264.177. The Permittees shall follow the procedures for handling ignitable, reactive, and incompatible wastes specified in Permit Attachment A (Facility Description). The Permittees shall ensure that containers holding ignitable or reactive wastes are located at least 15 meters from the SNL Technical Area boundary with the following exceptions: at the MSB where they shall be stored at least 15 meters from the fence restricting access by non-Facility personnel at all times, and at the HWHU where they shall be stored at least 15 meters from the Facility property line. (*See* 40 CFR §§ 264.176).

The Permittees shall take precautions during the treatment or storage of ignitable or reactive waste, the mixing of incompatible waste, or the mixing of incompatible wastes and other materials to prevent reactions that could lead to or cause the following:

1. Generation of extreme heat, pressure, fire, explosions (except as a result of normal treatment operations at the TTU), or violent reactions;
2. Production of uncontrolled toxic mist, fumes, dusts, or gases in sufficient quantities to threaten human health or the environment;
3. Production of uncontrolled flammable fumes or gases in sufficient quantities to pose a risk of fire or explosions;
4. Damage to the structural integrity of the container, permitted unit, or other structure associated with the permitted unit;
5. A threat to human health or the environment;
6. Spontaneous combustion; or
7. Reaction of wastes with water. Water-reactive wastes shall not be stored in waste management areas equipped with automatic water sprinkler systems. When water-reactive wastes are present in such waste management areas (e.g. for treatment or temporary staging), the Permittees shall isolate the wastes with water-resistant barriers such as cabinets or over pack drums to keep water from coming in contact with the waste.

(*See* 40 CFR § 264.17(b)).

### **2.10.1 Ignitable and Reactive Waste Precautions**

The Permittees shall prevent accidental ignition or reaction of ignitable or reactive wastes by taking the following precautions.

1. Ensure there are no sources of open flames in, on, or around the containers;
2. Segregate and separate ignitable or reactive wastes and protect them from sources of ignition or reaction such as cutting and welding, frictional heat, sources of sparks (e.g., static, electrical, mechanical), hot surfaces, spontaneous ignition, and radiant heat (e.g., heat-generating wastes) except when deliberately introduced during treatment in accordance with Permit Part 4;

3. Ensure that no forklifts or other motorized equipment are used in the vicinity of open containers of ignitable or reactive wastes unless such equipment is designed for use in flammable environments.
4. Maintain adequate clearance around fire hydrants at permitted units;
5. Use only non-sparking/spark-proof tools when managing open containers of hazardous or mixed waste that contain ignitable or reactive wastes, and when opening or closing such containers. When flammable or reactive liquids are transferred from one container to another (for conductive containers), grounding procedures or equivalent methods shall be used to minimize or dissipate static electric charge;
6. Ensure appropriate lightning protection is provided for all storage and treatment units;
7. Perform inspection, testing, and maintenance of fire protection equipment;
8. Confine smoking and open flames to designated areas that are a minimum of 50 feet from areas where ignitable or reactive wastes are handled; and
9. Ensure that each permitted unit's fire suppression system is compatible with the waste being stored or treated at the permitted unit.

### **2.10.2 Incompatible Waste Precautions**

The Permittees shall ensure that any storage container holding a hazardous or mixed waste that is incompatible with any waste or other materials stored nearby in other containers, piles, open tanks, or surface impoundments must be separated from the other waste or materials or protected from them by means of a dike, berm, wall, or other device. (*See* 40 CFR § 264.177(c)).

The Permittees shall ensure that wastes are not stored with incompatible wastes or materials within or on the same secondary containment structure. The Permittees shall ensure that all wastes are stored in containers made of or lined with materials that are compatible with the wastes. (*See* 40 CFR § 264.172).

The Permittees shall not store cyanides and cyanide mixtures or solutions with acids if a mixture of the materials could generate hydrogen cyanide. The Permittees shall not store Class 8 (corrosive) liquids above or adjacent to Class 4 (flammable) or Class 5 (oxidizing) wastes except when it is known that the mixture of the wastes could not cause a fire or a dangerous evolution of heat or gas.

The Permittees shall ensure that hazardous or mixed wastes are not placed in an unwashed container (*See* 40 CFR § 264.177(b)) that previously held an incompatible waste or material.

### **2.10.3 Presence of Liquids in Containers**

Containers that contain free liquids shall be stored in areas equipped with secondary containment. Before storing containers in areas without secondary containment, the Permittees shall verify that the containers do not contain free liquids by reviewing the information provided by the waste generator as detailed under the Waste Analysis Plan in Permit Attachment C.

## **2.11 PREPAREDNESS AND PREVENTION**

### **2.11.1 Required Equipment**

At a minimum, the Permittees shall maintain the equipment set forth in Permit Attachment D (Contingency Plan), and as required by 40 CFR § 264.32.

The Permittees shall maintain required equipment, including internal communications or alarm systems; devices to summon emergency assistance; fire control, spill control, and decontamination equipment; and adequate water volume and pressure for fire suppression equipment at each Permitted Unit. Permitted Units, except the TTU and the MSB, shall be equipped with fire suppression systems. The Permittees shall maintain portable fire extinguishers, fire control equipment, spill control equipment, and decontamination equipment as required by 40 CFR § 264.32(c). The Permittees shall make available fire control inspection records upon request by the Department.

A list of required equipment, with the location and capabilities of the equipment, is provided in each Unit-specific Section of Permit Attachment D (Contingency Plan) of this Permit. (40 CFR § 264.32).

### **2.11.2 Testing and Maintenance of Equipment**

The Permittees shall test and maintain the equipment specified in Permit Attachment D (Contingency Plan), as necessary, to assure its proper operation in time of emergency, as required by 40 CFR § 264.33.

This equipment shall undergo inspection at a frequency specified in Attachment E, and in accordance with 40 CFR §264.15(b)(4) to ensure proper functionality.

If testing identifies any nonfunctioning communication equipment, alarm system component or fire protection component, spill control or decontamination equipment, the Permittees shall ensure it is promptly repaired; and shall provide substitute equipment or systems during the time it takes to make repairs.

The Permittees shall assure that communications and alarm systems and fire protection, spill control, and decontamination equipment are inspected or tested according to the inspection plans and schedules detailed in Permit Attachment E. Maintenance, repair, and replacement of emergency equipment shall be performed as needed to ensure proper function and in a timely manner.

### **2.11.3 Access to Communications or Alarm System**

The Permittees shall maintain access to the communications or alarm system as required by 40 CFR § 264.34, and in accordance with Permit Attachments D (Contingency Plan) and E (Inspection Plan).

The Permittees shall ensure that whenever waste is being managed at the permitted units, the personnel involved shall have immediate access to an internal alarm or emergency communication device, either directly or through visual or voice contact with another individual. In the event of an emergency, this communication equipment or method must allow personnel to

contact the Unit-specific Emergency Coordinator and the Emergency Operations Center. (40 CFR § 264.32(a-b) and 40 CFR § 264.34).

## **2.12 HAZARDS PREVENTION**

### **2.12.1 Preventing Hazards in Loading and Unloading**

Only closed waste containers shall be accepted for transportation by vehicles to the Permitted Units. Prior to transport, containers shall be inspected to ensure that they are properly closed, labeled, secured, and in suitable condition for transport.

If loading and unloading operations occur outdoors, they shall be conducted in an area immediately adjacent to the Permitted Unit to minimize the distance that the waste must be moved. Spills that occur during loading or unloading operations shall be promptly cleaned up, and if an emergency, in accordance with spill response procedures contained in Permit Attachment D (Contingency Plan). All loading and unloading areas shall be level, and the asphalt, concrete, or other pavement maintained in good condition.

Loading and unloading areas shall be free of overhead obstructions and other obstructions to visibility and operations. All containers shall be handled in a manner to prevent shifting or falling while being stored or transported. Containers too large to hand carry shall be transported using forklifts, drum dollies, pallet jacks, or other appropriate equipment. Waste-handling equipment shall be maintained and operated in accordance with manufacturers' guidance. Except as necessary in an emergency, only qualified personnel trained in hazardous and mixed waste management procedures are allowed to handle waste at the Permitted Units. The Permittees shall be aware of weather conditions and other operations that could adversely affect the safety of waste management operations, and shall exercise caution.

### **2.12.2 Preventing Runoff or Flooding**

Run-on of surface water from surrounding areas, run-off of hazardous or mixed waste or hazardous waste constituents, runoff of surface water contaminated with hazardous or mixed waste or hazardous waste constituents shall be prevented at Permitted Units by design and operating practices. Unit-specific run-on and run-off features and operating precautions are described in Permit Attachment A (Facility Description).

### **2.12.3 Preventing Contamination of Water Supplies**

Hazardous or mixed waste releases shall be cleaned up promptly. Releases occurring outside buildings shall be contained promptly. (40 CFR § 270.32(b)(2))

### **2.12.4 Mitigating Effects of Equipment Failure and Power Outages**

In the event of a power loss or equipment failure at a Permitted Unit, the Permittees shall place the affected equipment in a safe state, close or cover open containers of hazardous or mixed wastes that are present, stop operations until power is restored, or take other measures to ensure the failure or outage does not adversely affect human health or the environment. (See 40 CFR §§270.30(e)).

### **2.12.5 Preventing Undue Exposure**

Facility personnel and visitors at Permitted Units and SWMUs/AOCs undergoing corrective action shall be required to use appropriate PPE to protect themselves from hazards, including but not limited to handling heavy containers, operating waste-handling equipment, weather conditions, and contact with or other exposure to hazardous or mixed wastes and hazardous waste constituents as required.

### **2.12.6 Arrangements with Local Authorities**

The Permittees shall maintain Coordination Agreements with the police, fire department, State and local emergency response teams, and one or more local hospitals that would respond to emergencies at the Permitted Units. The Coordination Agreements shall be in writing executed by Permittees and the local authorities, and shall include the requirements provided in 40 CFR § 264.37(a). Agreements are listed in the Attachment D (Contingency Plan).

## **2.13 CONTINGENCY PLAN**

### **2.13.1 Implementation of Contingency Plan**

The Permittees shall implement the Contingency Plan (Attachment D) immediately whenever at a permitted unit (including any unit undergoing post-closure care):

1. A release of a hazardous or mixed waste or hazardous waste constituents occurs which could threaten human health or the environment;
2. An explosion occurs (other than normal operations at the TTU); or
3. A fire occurs (other than normal operations at the TTU).

(See 40 CFR § 264.51(b)).

### **2.13.2 Distribution**

The Permittees shall maintain a current copy of the Contingency Plan, at or in the following locations:

1. Each Permitted Unit;
2. The Emergency Management and Response Office; and
3. The Facility Operating Record; this shall include all revisions and amendments.

The Permittees shall distribute copies of the current Contingency Plan to all entities with which the Permittees have arrangements in accordance with Permit Section 2.12.6.

The Permittees shall distribute the Contingency Plan within fifteen days of the effective date of this Permit and within fifteen days of the effective date of a modification of the Contingency Plan. The Permittees shall ensure that all copies of the Contingency Plan distributed outside the Facility are sent either through mailing of a hard copy letter or via electronic mail. The Permittees shall obtain a return receipt or other record of receipt to ensure distribution. A record of compliance with this requirement shall be maintained in the Facility Operating Record. (See 40 CFR § 270.32(b)(2)).

The Permittees shall ensure that evacuation routes for each Permitted Unit are prominently posted at each Permitted Unit. (*See* 40 CFR § 270.32(b)(2)).

### **2.13.3 Amendments to Plan**

Pursuant to 40 CFR § 264.54 the Permittees shall review the Contingency Plan and amend the Plan, if necessary, whenever:

1. This Permit is revised;
2. The Contingency Plan fails during an emergency;
3. The Permittees modify a Permitted Unit in either its design, construction, operation, maintenance, or other circumstances in a manner that materially increases the potential for fires, explosions, or releases of hazardous or mixed wastes or hazardous waste constituents;
4. A change in the Permitted Unit design or operation affects the response necessary in an emergency;
5. The Permittees modify the list of Emergency Coordinators;
6. The Permittees modify the list of emergency response equipment; or
7. The Permittees review and evaluate their emergency response resources and capabilities with respect to hazardous or mixed waste management and find deficiencies.

The Permittees shall ensure that all amendments to the Contingency Plan adhere to the permit modification requirements at 40 CFR §§ 270.41 through 270.43, which are incorporated herein by reference, including the modification classifications at 40 CFR § 270.42 Appendix 1, Category B.6.

### **2.13.4 Emergency Coordinator**

The Permittees shall designate an Emergency Coordinator required at 40 CFR § 264.55, who shall be responsible for coordinating all emergency response measures related to the management of hazardous or mixed wastes. An Emergency Coordinator shall be on call at all times, be familiar with the Contingency Plan, and shall have the authority to commit promptly the personnel and financial resources needed to implement the Contingency Plan (*see* 40 CFR § 264.55). The Permittees shall name at least one alternate Emergency Coordinator who shall assume the responsibilities of the Emergency Coordinator in accordance with Permit Attachment D (Contingency Plan).

The Permittees shall notify the Department in writing of changes to the personnel designated as Emergency Coordinators (EC) and listed with their telephone numbers in Attachment D (Contingency Plan), Table D-5 (HWHU EC list), Table D-7 (TTU EC list), Table D-9 (RMWMU EC list), Table D-11 (AHCUC EC list), Table D-13 (MSB EC list), and Table D-15 (CAMU EC list). This notification shall be a Class 1 permit modification.

### **2.13.5 Required Emergency Procedures**

#### **2.13.5.1 Immediate Notifications**

In the event of an imminent or actual emergency situation, Permitted Unit personnel shall immediately activate the internal facility alarm or communication systems to notify all facility



personnel. The Emergency Coordinator shall ensure that the appropriate federal, tribal, state, and local agencies with designated response roles are notified as necessary.

#### **2.13.5.2 Hazard Assessment**

The Emergency Coordinator shall, in the event of a fire, explosion, or release:

1. As soon as practicable, identify the character, source, amount, and areal extent of any released materials. Possible methods are by observation, review of facility records, or by chemical analysis (*see* 40 CFR § 264.56(b)); and
2. Assess possible hazards to human health or the environment that may result from the release, fire, or explosion, considering both direct and indirect effects of the release, fire, or explosion (e.g., the effects of any toxic, irritating, or asphyxiating gases that are generated, or the effects of any hazardous surface water runoff from water or chemical agents used to control fire and heat induced explosions). (*See* 40 CFR § 264.56(c)).

#### **2.13.5.3 Reporting Emergencies**

In the event that the Emergency Coordinator determines that there has been a release, fire, or explosion that may threaten human health or the environment outside the boundaries of the Facility, he or she shall report the emergencies as follows:

1. If an assessment indicates that evacuation of local areas may be advisable, he or she shall immediately notify the appropriate local and tribal authorities and shall be available to assist appropriate officials in deciding whether local areas should be evacuated (*see* 40 CFR § 264.56(d)(1)); and
2. Immediately notify the New Mexico Department of Public Safety dispatcher (1-505-827-9329), and the National Response Center (1-800-424-8802) (*see* 40 CFR § 264.56(d)(2)). This notification shall include the list of items found in Permit Attachment D Section D.8.

#### **2.13.5.4 Mitigative Measures**

When the Contingency Plan is implemented under Permit Section 2.13.5, the Emergency Coordinator shall take all reasonable measures necessary to ensure that fires, explosions, and releases do not occur, recur, or spread to other hazardous or mixed wastes at the Facility. These measures shall include, where applicable, stopping processes and operations, collecting and containing released wastes, and removing or isolating containers. (*See* 40 CFR § 264.56(e)).

#### **2.13.5.5 Monitoring**

When the Contingency Plan is implemented under Permit Section 2.13.5, the Emergency Coordinator shall utilize available air monitoring resources, as appropriate, to measure and characterize any air emissions both inside and outside the Facility boundary caused by a fire, explosion, or release to the atmosphere. (*See* 40 CFR § 270.32(b)(2)).

In the event that the Facility stops operations in response to a fire, release, or explosion, the Emergency Coordinator shall monitor for leaks, pressure buildup, gas generation, or ruptures in containers, valves, pipes, or other equipment as appropriate. (*See* 40 CFR § 264.56(f)).

### **2.13.6 Post-Emergency Procedures**

Immediately after an emergency in which the Contingency Plan was implemented, the Emergency Coordinator shall provide for the treatment, storage, or disposal of recovered wastes, contaminated soils or surface water, or any other material or contaminated environmental media that resulted from the fire, explosion, or release at the Facility (*see* 40 CFR § 264.56(g)).

The Emergency Coordinator shall ensure that in the affected areas of the Facility:

1. No waste that may be incompatible with the released material is treated, stored, or disposed of in the impacted area until cleanup procedures are completed; and
2. All emergency equipment listed in the Contingency Plan is cleaned and fit for its intended use before operations are resumed

(*See* 40 CFR § 264.56(h)).

### **2.13.7 Need for Further Corrective Action**

If, after implementation of the Contingency Plan in response to a fire, explosion or release, the Department determines the area affected by the fire, explosion or release has not been entirely remediated, the Permittees shall conduct corrective action as directed by the Department and in accordance with Permit Part 8 (Corrective Action Procedures).

### **2.13.8 Notification and Record Keeping**

The Permittees shall notify the Department of implementation of the Contingency Plan in compliance with 40 CFR § 264.56(i).

Before operations resume in the Facility's affected areas the Permittees shall notify the Department that the Facility is in compliance with Permit Section 2.13.6.

## **2.14 RECORD KEEPING AND REPORTING**

The Permittees shall comply with the record keeping and reporting requirements specified throughout this Permit and at 40 CFR § 264.73.

### **2.14.1 Manifest Systems**

The Permittees shall comply with the record keeping and reporting requirements associated with manifests in accordance with 40 CFR §§ 264.71, 264.72, and 264.76, which are incorporated herein by reference, whenever a shipment of hazardous or mixed waste is either received at, or initiated from the Facility.

### **2.14.2 Operating Record**

The Permittees shall comply with the recordkeeping and reporting requirements specified in 40 CFR § 264.73(a), 40 CFR § 270.30(j)(2) and (3), and elsewhere in this Permit. Pursuant to 40 CFR § 264.73, the Permittees shall maintain a written Operating Record for each Permitted Unit at the Facility for the active life of the Facility, except as provided by 20.4.1.501.A(5) NMAC, Permit Section 7.2.2 and Permit Attachment H (Post-Closure Care Plans).

Unless specifically prohibited by this Permit, an electronic record in format usable by the Department capable of producing a paper copy shall be deemed to be a written record. Any substantive alterations made to the electronic record shall be documented, dated, and made part of the Facility Operating Record.

The Permittees shall incorporate into the Facility Operating Record the following documents and all amendments, revisions and modifications to these documents:

1. A description of the hazardous or mixed waste received and the methods and dates of treatment and storage at each Permitted Unit in accordance with Appendix I of 40 CFR Part 264;
2. The location of each type of hazardous or mixed waste within each Permitted Unit and the total quantity of all hazardous or mixed wastes at each unit. This information must include cross-references to specific manifest document numbers for any waste received in accordance with Permit section 2.2.3;
3. Records and results of waste analyses and waste determinations that are performed pursuant to Permit Attachment C (Waste Analysis Plan), and 40 CFR §§ 264.13, and any section cited in 264.73(b)(3);
4. Reports and details of all emergencies that required the implementation of Permit Attachment D (Contingency Plan) as specified in 40 CFR § 264.56(i);
5. Information on any instance of fire, explosion, spill, or release from, or at, a Permitted Unit regardless of whether the incident required implementation of the Contingency Plan;
6. Records and results of inspections for each Unit as required in Permit Attachment E (Inspection Plan) and 20.4.1.501.A.(5) NMAC;
7. Monitoring, testing, analytical data, and response actions when required by 40 CFR §§ 264.602, 264.1082, 264.1083, and 264.1086 through 264.1090;
8. Notices to off-site generators as specified in 40 CFR § 264.12(b);
9. An annual certification, pursuant to 40 CFR 264.73(b)(9), stating a Facility program is in place to reduce the volume and toxicity of hazardous and mixed waste generated;
10. Copies of the notices and certifications required under 40 CFR §§268.7(b) and 268.9 for wastes treated at a Permitted Unit;
11. All monitoring reports and records required by this Permit, including but not limited to;
  - a. records of all monitoring data used to complete Permit Application(s),
  - b. all data gathered or generated during the closure or post-closure process, and
  - c. all raw data, such as laboratory reports, drilling logs, bench scale or pilot scale data, and other supporting information gathered or generated during activities undertaken pursuant to this Permit. Raw data shall be made available to the Department upon request;
12. Documentation demonstrating distribution of the Contingency Plan in accordance with Permit Section 2.13.2;
13. Documentation demonstrating the installation and maintenance of secondary containment system coatings or sealants as required at Part 3, Permit Section 3.6;
14. Personnel training records including both introductory and continuing training programs used to prepare employees to safely operate and maintain each Permitted Unit in compliance with 40 CFR § 264.16(d) and (e), and Permit Attachment F (Personnel Training Plan)
15. Documentation of all instances where an indoor fire suppression system has been activated resulting in fire suppressants directly contacting hazardous or mixed waste;

16. This Permit, including the Waste Analysis Plan set forth in Attachment C (Waste Analysis Plan), the Contingency Plan as set forth in Attachment D (Contingency Plan), the Closure Plans set forth in Attachment G (Closure Plans), the Post-Closure Plan, as required under 40 CFR § 264.118 and all other Permit Parts and Attachments;
17. All correspondence and other documents related to post-closure care from the Department and U. S. Environmental Protection Agency.

The Permittees shall maintain each document required in the Operating Record at the Facility where they can easily be retrieved and reviewed; except the following documents which shall be maintained at the Permitted Units at the Facility:

1. Inspection Schedule and all completed inspection records for that Unit for the current calendar year as set forth in Attachment E (Inspection Plan), as required by 40 CFR § 264.15(b) and this Permit,
2. Records for the current year of all training required by this Permit for current personnel at that Unit, except personnel training records for the MSB shall be maintained at the RMWMU.
3. The Contingency Plan for the Unit (consisting of the general Facility requirements and the applicable Unit-specific requirements in Permit Attachment D).

Corrective action documents required by Part 8 of this Permit shall be retained at the Facility by the Permittees until closure of the Facility, in accordance with 20.4.1.501.A(5) NMAC.

### **2.14.3 Availability of Facility Operating Record**

The Permittees shall furnish and make reasonably available for inspection, upon request by any officer, employee, or representative of the Department, the Facility Operating Record and all other records required under 40 CFR Part 264 or this Permit. (See 40 CFR § 264.74(a) and pursuant to 74-4-4.3 NMSA 1978). Information and records requested by the Department pursuant to this condition shall be made available for inspection in hard copy or in electronic format usable by the Department. (See 40 CFR § 270.32(b)(2)).

### **2.14.4 Record Retention**

The Permittees shall retain all records required by this Permit during the course of any unresolved enforcement action regarding the Facility or as required by the Department. (See 40 CFR § 264.74(b)).