

## ATTACHMENT II-1-8

### MANAGEMENT OF WASTE FOR DISPOSAL AT THE LLRW FACILITY

#### 1. PURPOSE AND SCOPE.

This attachment outlines requirements for the management, segregation, and transfer of waste received for management at the Mixed Waste Facility that will be disposed at the LLRW Facility. For the purposes of this attachment, these wastes shall be designated as “LLRW-Destined” wastes.

#### 2. DEFINITIONS.

- a. Alternate Debris Treatment Standards are those extraction, destruction, and immobilization treatment technologies described in Utah Admin. Code R315-13 (40 CFR 268.45, by reference).
  - i. Extraction treatment technologies include abrasive blasting, scarification, grinding, planing, spalling, high pressure water spraying, solvent extraction, and water washing.
  - ii. Destruction treatment technologies include biological and chemical treatment of debris surfaces.
  - iii. Immobilization treatment technologies include macroencapsulation and microencapsulation.
- b. Alternative Soil Treatment Standards are described in Utah Admin. Code R315-13 (40 CFR 268.49, by reference). These treatment standards allow waste soil to be considered Land Disposal Restriction (LDR) compliant if all constituents subject to treatment are either:
  - i. treated to a 90 percent reduction in constituent concentrations (leachate or total); or
  - ii. treated to a concentration less than 10 times the Universal Treatment Standard (UTS) for all potential Underlying Hazardous Constituents (UHCs).
- c. Formerly Characteristic Wastes are those wastes that only contain characteristic hazardous waste codes (D-codes only; no F-, K-, P-, or U- codes) at the point of generation and that have been treated below the treatment standards described in Utah Admin. Code R315-13 (40 CFR 268.40), including the treatment standards for all UHCs.

- d. LLRW-Destined Wastes are those wastes that shall be managed at the Mixed Waste Facility in accordance with this attachment and disposed at the LLRW Facility.
- e. Point of Generation is the point where a solid waste produced by a system, process, or waste management unit is determined to be a hazardous waste.
- f. Underlying Hazardous Constituents (UHCs) are those constituents listed in Utah Admin. Code R315-13 (40 CFR 268.48, by reference) except fluoride, selenium, sulfides, vanadium, and zinc, which can reasonably be expected to be present at the point of generation of the hazardous waste at a concentration above the constituent-specific treatment standards. UHCs are only applicable if the waste originally contained characteristic (D-) codes.
- g. Universal Treatment Standards (UTS) are the treatment standards for UHCs required to be met in order for the waste to be considered non-hazardous. These treatment standards are listed in 40 CFR 268.48.
- h. Visibly clean is the criterion in which all observable contamination has been removed from surfaces. This criterion includes the removal of all material that can be removed with a broom, shovel or other tool.

### 3. PROHIBITED WASTE TRANSFERS

The following wastes shall not be managed as LLRW-Destined wastes:

- a. Wastes which maintain a listed hazardous waste code as described in Utah Admin. Code R315-2-10 and Utah Admin. Code R315-2-11 (40 CFR 261.30 – 261.33, by reference). This includes any waste that maintains an F-, K-, P-, or U-hazardous waste code.
- b. Wastes which maintain a characteristic (D-) hazardous waste code or that maintains UHCs that have not been treated to meet their respective UTS.
- c. Thermal desorption residues.
- d. Evaporation tank liquids.
- e. Amalgamated mercury.
- f. Debris that has been treated using an immobilization technology (e.g., macroencapsulation).
- g. Evaporation surface impoundment liquids.

4. WASTE ACCEPTANCE

- a. Wastes which are mixed wastes when received will follow the acceptance procedures of Attachment II-1, *Waste Analysis Plan*.
- b. Wastes which are not mixed wastes when received will follow the acceptance procedures of the Waste Characterization Plan within the Permittee's Radioactive Material License (UT 2300249).

5. WASTE TRANSFER.

- a. The following wastes may be transferred from the Mixed Waste Facility to the LLRW Facility after appropriate action is completed in accordance with this attachment.
  - i. Formerly characteristic wastes (either solid or liquid prior to treatment) that meet the required treatment standards for all characteristic codes and applicable UHCs.
  - ii. Solidified LLRW liquids that never retained listed or characteristic hazardous waste codes.
  - iii. Debris that has been treated to the alternate debris treatment standards using an extraction or destruction treatment technology (e.g., spray washing).
  - iv. Soil that has been treated to the alternative soil standards, provided that
    - A. the soil was not originally contaminated with a listed waste; and
    - B. the treated waste does not exhibit any hazardous characteristics as described in Utah Admin. Code R315-2-9 (40 CFR 216, Subpart C).
  - v. Empty containers that meet the definition of visibly clean.
  - vi. Solid LLRW that never retained listed or characteristic hazardous waste codes.
- b. Documentation of the treatment or other management performed and the waste transfer shall be maintained in the Operating Record. Documentation of the treatment or other management performed shall include:
  - i. records of inspections and evaluations that determine compliance with the

treatment standards as described in Utah Admin. Code R315-13 (40 CFR 268);

- ii. records of treatment data or information that identifies key operating parameters of the treatment or other management process;
  - iii. verification analytical data (if applicable); and
  - iv. certifications, described in Section 8, that the waste is non-hazardous.
- c. LLRW-Destined wastes shall be classified and manifested prior to transfer in accordance with Radioactive Material License #UT 2300249, Conditions 15.C and 15.D.

## 6. FACILITY PREPARATION.

- a. The area of the Mixed Waste Facility where management of LLRW-Destined wastes is to be performed will be prepared as follows to avoid contamination of the waste with Mixed Waste contaminants.
- b. All tanks and equipment that contact the waste shall be decontaminated by triple-rinsing with water or another suitable solvent prior to managing the waste.
  - i. Documentation of the triple rinse shall be maintained in the Operating Record.
  - ii. Tanks and equipment that have only been exposed to characteristic or non-hazardous wastes since the last decontamination event will not require additional decontamination.
- c. The surface where LLRW-Destined wastes will be managed shall be maintained free of hazardous contamination.
  - i. Floors will be swept, washed, and inspected. This activity shall be documented in the Operating Record.
  - ii. Alternatively, a tarp or other non-contaminated coverings may be placed onto the floor where LLRW-Destined wastes are managed.
    - A. Tarps and other non-contaminated coverings may be reused; however, final disposal of the tarp shall be in the Mixed Waste Landfill Cell.
- d. Mixed wastes may be stored within the building in which LLRW-Destined wastes are being managed; however, the LLRW-Destined waste management area shall

be clearly designated and differentiated from other areas. This differentiation shall consist of aisle spacing, labeling, segregation, or other similar techniques.

7. WASTE MANAGEMENT.

- a. LLRW-Destined wastes shall be managed as described in the following attachments to this Permit.
  - i. Management within the Mixed Waste Operations Building shall be performed in accordance with Attachment II-1-9, *Mixed Waste Operations Building Operating Plan*.
  - ii. Management within the Mixed Waste Treatment Building shall be performed in accordance with Attachment II-1-11, *Mixed Waste Treatment Building Operating Plan*.
  - iii. Management within the Mixed Waste Storage Building shall be performed in accordance with Attachment II-1-13, *Mixed Waste Storage Building Operating Plan*.
  - iv. Stabilization of LLRW-Destined wastes shall be performed in accordance with Attachment II-1-3, *Waste Stabilization Plan*.
  - v. Solidification of LLRW-Destined wastes shall be performed in accordance with Attachment II-1-4, *Liquid Waste Management Plan*.
  - vi. Debris washing to the Alternate Debris Treatment Standards shall be performed in accordance with Attachment II-1-7, *Spray Washing Plan*.

8. TREATMENT VERIFICATION.

- a. Treatment of characteristic wastes and soils shall be verified through sampling and analysis of treatment residues.
  - i. Sampling frequencies shall be as described in Attachment II-1-3, *Waste Stabilization Plan*.
  - ii. The analytical results shall be reviewed and certified that the treatment standards have been met for all applicable characteristics and UHCs.
  - iii. The certification shall be signed and include the certifying language of 40 CFR 268.7(b)(4)(v).
  - iv. This review and certification shall be completed before transfer to the LLRW disposal facilities.

- b. LLRW liquids shall be verified non-hazardous through waste acceptance sampling. Post-solidification sampling will not be required.
- c. Verification of debris treatment by an extraction or destruction treatment technology shall be certified through the records described in Conditions 5.b.i and 5.b.ii.
  - i. The certification shall be signed and include the certifying language of 40 CFR 268.7(d)(3)(iii).
- d. Empty containers shall be inspected and certified to meet the visibly clean criterion.
- e. Solid LLRW that never retained listed or characteristic hazardous waste codes has already been certified by the generator and does not require verification.
  - i. A description of management activities at the Mixed Waste Facility shall be documented and retained in the Operating Record.
- f. Documentation of all treatment records and certifications shall be kept in the Operating Record.

9. STORAGE

- a. LLRW-Destined wastes shall only be stored in tanks or containers which have been prepared in accordance with Section 5 of this attachment.
- b. LLRW-Destined wastes shall be differentiated from other mixed wastes at all times. This differentiation shall consist of aisle spacing, labeling, segregation, or other similar techniques.
- c. LLRW-Destined wastes shall be clearly labeled as such.

END OF ATTACHMENT II-1-8