

U. S. Department of Energy



Consolidated Audit Program Treatment, Storage and Disposal Facilities

Checklist 3 Waste Operations

Revision 1.2
November 30, 2007

Audit ID:

Date:

Audit ID: _____ TSDF: _____ Auditor: _____

Prepared by: Todd Hardt

Approved by: *Carolynne Thomas*

Areas Reviewed During Audit:

- | | | | | |
|---|---|---|-------------------------------------|---|
| <input type="checkbox"/> Waste Acceptance | <input type="checkbox"/> Waste Tracking | <input type="checkbox"/> Waste Treatment | <input type="checkbox"/> Aged Waste | <input type="checkbox"/> Treatability Studies |
| <input type="checkbox"/> Waste Storage | <input type="checkbox"/> Treatment | <input type="checkbox"/> Site Generated Waste | <input type="checkbox"/> Training | <input type="checkbox"/> Disposal |
| <input type="checkbox"/> Recordkeeping | | | | |

Waste Management Methods Evaluated:

Management Method:

Treatment Method:

- | | | | |
|--|--|--|------------------|
| <input type="checkbox"/> Disposal/Landfill | <input type="checkbox"/> Macroencapsulation | <input type="checkbox"/> Compaction/Size Reduction | Other _____ |
| <input type="checkbox"/> Waste Storage | <input type="checkbox"/> Neutralization | <input type="checkbox"/> Stabilization/Vitrification | Treatment: _____ |
| <input type="checkbox"/> Waste Treatment | <input type="checkbox"/> Segregation/Repackage | <input type="checkbox"/> Metals Treatment | Recycling _____ |
| <input type="checkbox"/> Recycling | <input type="checkbox"/> Thermal Desorption | <input type="checkbox"/> Incineration | Method _____ |
| | <input type="checkbox"/> Aqueous treatment | <input type="checkbox"/> Solvent Washing | |
| | <input type="checkbox"/> Fuels Blending | <input type="checkbox"/> Deactivation | |

Acceptable Waste Types Received:

- | | | |
|---|--|--|
| <input type="checkbox"/> Hazardous Only | <input type="checkbox"/> TSCA Regulated Wastes | <input type="checkbox"/> Biological/Infectious Waste |
| <input type="checkbox"/> Radioactive Only | <input type="checkbox"/> Bulk Product/Remediation TSCA Waste | <input type="checkbox"/> CERCLA Generated Waste |
| <input type="checkbox"/> Mixed Waste | <input type="checkbox"/> Beryllium Contaminated/Containing | <input type="checkbox"/> Asbestos (friable/nonfriable) |
| <input type="checkbox"/> Sanitary Waste | <input type="checkbox"/> Cylinders | |

Acceptable Waste Forms:

Acceptable Conveyances:

Storage Vessels:

- | | | | | | |
|---------------------------------|---------------------------------|----------------------------------|-------------------------------|--------------------------------------|--|
| <input type="checkbox"/> Liquid | <input type="checkbox"/> Sludge | <input type="checkbox"/> Highway | <input type="checkbox"/> Rail | <input type="checkbox"/> Containers | <input type="checkbox"/> Aboveground Storage Tanks |
| <input type="checkbox"/> Solid | <input type="checkbox"/> Gas | <input type="checkbox"/> Ship | | <input type="checkbox"/> Waste Piles | <input type="checkbox"/> Underground Storage Tanks |
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Access to all referenced regulations is available at the following URLs: <https://doecap.oro.doe.gov> <http://www.access.gpo.gov/nara/cfr/cfr-table-search.html#page1>

NOTE: When audit findings are written against *site-specific documents* (i.e., SOPs, QA Plans, licenses, permits, etc.), a *copy* of the *pertinent requirement text* from that document *must* be attached to this checklist for retention in DOECAP files.

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| Item Number | Line of Inquiry | Status | Response/Comments |
|-------------|--|--------|-------------------|
| 1.0 | General | | |
| 1.1 | The facility has the necessary permits and licenses to perform the operations noted above. (RCRA, TSCA, Radioactive Material License) | | |
| 1.2 | The facility has an EPA identification number if treating, storing, transporting, or disposing hazardous waste. <i>40 CFR 264.11 and 265.11</i> | | |
| 1.3 | The facility controls entry to the active portion of the facility. <i>40 CFR 264.14 and 265.14</i> | | |
| 1.4 | Facility personnel who handle hazardous waste meet the training requirements in 40 CFR 264.16 (a) through (c) and 265.16 (a) through (c). | | |
| 1.5 | Training records are maintained for all TSDF staff who manages hazardous waste. <i>40 CFR 264.16(d,e) and 40 CFR 265(d,e)</i> | | |
| 1.6 | Copies of operating records are kept at the facility. <i>40 CFR 264.73 through 264.74 and 265.73 through 265.74</i> | | |

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| 2.0 | Waste Acceptance | | |
| 2.1 | Are there any limitations to waste acceptance per environmental permits or radioactive licenses? If so, how does the facility monitor/control these limitations? RCRA Part B, Radioactive Materials License | | |
| 2.2 | The facility has a designated person responsible for waste acceptance who has the appropriate skills and training to perform the work. 40 CFR 264.16 (d) (4) | | |
| 2.3 | The waste tracking system is documented in a procedure. The program establishes waste profiles and acceptance ranges for customer wastes. 40 CFR 264.73 (b) (2); Operational Permits; NQA-1 | | |
| 2.4 | The facility has a written waste analysis plan (WAP) in place for up-front evaluation of customer wastes, establishes waste profiles and defines acceptance ranges for selected parameters of the waste that is shipped. 40 CFR 264.13 (b) | | |
| 2.5 | The WAP defines procedures for inspection and verification against the manifest? 40 CFR 264.13 (a) (4) | | |

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| 2.6 | Prior to receipt, wastes are inspected/sampled to verify acceptability. <i>40 CFR 264.13 (b)</i> | | |
| 2.7 | Routine full testing is performed to ensure that the waste is authorized under permits/licenses and matches the waste profile within established acceptable ranges. <i>40 CFR 264.13 (b)</i> | | |
| 2.8 | A process is in place to track compliance with radiological limits. The facility can document the quantity of radionuclides onsite per license category. <i>Radioactive Materials License</i> | | |
| 2.9 | The facility operating record includes type/quantity of waste received, results of analyses, inspection results, and results of implementation of all incidents regarding implementation of the Contingency Plan. <i>40 CFR 264.73 (b)</i> | | |
| 2.10 | Prior to designating consolidation of waste, compatibility with container and other wastes in the vessel is performed. <i>40 CFR 264.17 (b); 40 CFR 264.172</i> | | |

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| 2.11 | The facility has a written plan and schedule for inspection and monitoring requirements for containers. <i>40 CFR 264.15; 40 CFR 264.1086 (c)(4) and (d)(4); 40 CFR 264.1088 (b); 40 CFR 265.15; 40 CFR 265.1086 (c)(4) and (d)(4); 40 CFR 265.1088 (b)</i> | | |

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| 3.0 | Waste Treatment | | |
| 3.1 | <i>Treatability Studies</i> | | |
| 3.1.1 | The facility performs treatability studies and has an EPA identification number. <i>40 CFR 261.4(e) and (f)</i> | | |
| 3.1.2 | Wastes received for treatability studies are <10,000 kg of media contaminated wastes, 2400 kg of media contaminated with acutely hazardous waste, <1000kg of non-acute hazardous waste or <1 kg of acutely hazardous waste. <i>40 CFR 264.4(e) and (f)</i> | | |
| 3.1.3 | Facility has notified EPA or State agency personnel 45 days prior to conducting treatability studies. <i>40 CFR 261.4(f)</i> | | |
| 3.1.4 | No more than 90 days have elapsed since treatability study was completed or no more than one (1) year has elapsed since the generator shipped the sample. <i>40 CFR 261.4(f)</i> | | |
| 3.1.5 | The facility maintains a copy of the treatability study contract and shipping papers for 3 years. <i>40 CFR 261.4(e) and (f)</i> | | |

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| 3.1.6 | The facility submits an annual treatability study report (by March 15). <i>40 CFR 261.4(f)</i> | | |
| 3.2 | <i>Waste Tracking</i> | | |
| 3.2.1 | The facility has a formal program in place to document the description and quantity of waste received and the method and date of treatment, storage and disposal or offsite shipment. <i>40 CFR 264.73(b)</i> | | |
| 3.2.2 | The facility has a formal waste tracking program that documents the location of each hazardous waste within the facility and are contemporaneous with waste receipt and processing. Waste is tracked from receipt, through treatment/disposal or offsite shipment. <ul style="list-style-type: none"> • Where is waste stored? • Where is waste sampled? • Where is waste treated? • What process batch is a given container treated in • What container number is the treated waste placed in • What manifest is the treated waste container shipped out on <i>40 CFR 264.73(b)</i> | | |

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| 3.2.3 | The waste tracking system documents a unique identification of each treatment batch and the associated waste containers that are in the batch. (e.g., demonstrate the specific batches that DOE waste containers are treated and shipped offsite in). <i>40 CFR 264.73(b)</i> | | |
| 3.2.4 | The waste tracking system is protected in the event of a system crash or disaster (routine backups) and/or there is an alternative manual means for tracking waste within the facility. <i>NQA-1 Subpart 2.7, Section 203(a)(2)</i> | | |
| 3.2.5 | Access to the waste tracking system is restricted to qualified and authorized users and all changes to the system are documented and made by qualified and authorized users. <i>NQA-1 Subpart 2.7, Section 405(b)</i> | | |
| 3.3 | <i>Aged Waste</i> | | |
| 3.3.1 | The facility currently does not have any waste onsite greater than one (1) year, and has an identified pathway for any waste stored onsite greater than 180 days. <i>40 CFR 268.50</i> | | |
| 3.3.2 | For any mixed wastes stored greater than one (1) year, the facility can demonstrate that storage is solely for the purpose of accumulation of such quantities to facilitate proper recovery, treatment and disposal. <i>40 CFR 268.50</i> | | |

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| 3.4 | Waste Storage | | Note: Any findings or observations associated with waste storage will be rolled up under Environmental Management. |
| 3.4.1 | Only wastes authorized under regulatory documents are stored onsite and do not exceed permitted capacities. <i>RCRA Permit, Radioactive Materials License</i> | | |
| 3.4.2 | During the physical walk down of the facility: <ul style="list-style-type: none"> • Waste containers were observed to be in good condition and closed except when necessary to add or remove waste. • Container storage areas have secondary containment that is designed and operated in compliance with regulatory and permit conditions. • Tank systems are located within secondary containment that has no free liquids and are situated in a permitted storage area with impermeable floors. <i>40 CFR 264.171, 40 CFR 264.175, 40 CFR 264.190</i> | | |
| 3.4.3 | The facility takes precautions to prevent the accidental ignition or reaction of ignitable or reactive wastes. <i>40 CFR 273.17(a) and (b)</i> | | |
| 3.4.4 | Empty containers previously holding hazardous wastes meet the regulatory definition of "empty" before they are exempted from hazardous waste requirements. <i>40 CFR 261.7</i> | | |

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| 3.4.5 | The facility meets the documentation requirements for containers. <i>40 CFR 264.1086(5), 40 CFR 264.1089(a), 40 CFR 264.1089(d) through (i)</i> | | |
| 3.4.6 | Containers holding ignitable or reactive waste are located 15 meters (50 feet) from the facility property line. <i>40 CFR 264.176</i> | | |
| 3.4.7 | Facility personnel conduct at least a weekly inspection of container storage areas. <i>40 CFR 264.174</i> | | |
| 3.4.8 | Containment buildings are operated according to specific standards. <i>40 CFR 264.1101(a)(3), 40 CFR 264.1101(c)(1), 40 CFR 264.1101(c)(4)</i> | | |
| 3.5 | <i>Treatment</i> | | |
| 3.5.1 | Controlled procedures are in place that specifies the required process for treating waste. The procedures are of sufficient detail to conduct the operation consistently from batch to batch. <i>10 CFR 830.122</i> | | |
| 3.5.2 | Wastes are treated to established standards (e.g., LDR standards) or receiving facility acceptance criteria. <i>40 CFR 268.40</i> | | |

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| 3.5.3 | Treatment activities are performed in compliance with applicable regulatory requirements and permit and license requirements. <i>RCRA Permit; Radioactive Materials License; TSCA authorization</i> | | |
| 3.6 | <i>Site Generated Waste</i> | | |
| 3.6.1 | The facility has a Waste Analysis Plan that documents the characterization of all site generated waste. <i>40 CFR 262.11</i> | | |
| 3.6.2 | The facility ships all mixed waste on a hazardous waste manifest compliant with governing requirements. <i>40 CFR 262.20</i> | | |
| 3.6.3 | Site generated wastes are stored in permitted areas, 90-day areas or satellite accumulation areas compliant with governing requirements. <i>40 CFR 262.34</i> | | |
| 3.7 | <i>Hazardous Waste Manifesting</i> | | |
| 3.7.1 | All RCRA regulated waste is received on a Uniform Hazardous Waste Manifest. <i>40 CFR 264.71</i> | | |

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| 3.7.2 | A procedure is in place that defines significant discrepancies and actions that should be taken. <i>40 CFR 264.71</i> | | |
| 3.7.3 | Manifest discrepancies are documented and resolved with the generator within 15 days of receipt of waste. <i>40 CFR 264.72</i> | | |
| 3.7.4 | Facility has a program in place to track and ensure that outgoing manifests are returned within 35 days of the date the waste was accepted by the transporter. <i>40 CFR 262.42</i> | | |
| 3.7.5 | Copies of manifests are retained at the facility for at least 3 years from the date of receipt. <i>40 CFR 264.71</i> | | |

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| 4.0 | Waste Disposal | | |
| 4.1 | <i>Hazardous Waste Landfills</i> | | |
| 4.1.1 | The landfill has a run-on control system, a runoff management system and control of wind dispersal of particulate matter. <i>40 CFR 264.301(g) through (k) and 40 CFR 265.301 (f) through (i)</i> | | |
| 4.1.2 | The landfill has a liner and a leachate collection and removal system. <i>40 CFR 264.301 (a) and (b)</i> | | |
| 4.1.3 | While in operation the landfill is inspected weekly. <i>40 CFR 264.303</i> | | |

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