

CH2M HILL Hanford Group, Inc.	Manual	HNF-IP-0842
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1.0 PURPOSE AND SCOPE

This procedure presents the requirements for managing dangerous waste generator activities under the River Protection Project (RPP) contract. These requirements are imposed to ensure compliance with the Washington State Department of Ecology (Ecology) and the U. S. Environmental Protection Agency regulations.

This procedure addresses the following generator requirements: general provisions, satellite accumulation area activities, and 90-day accumulation area activities. Other generator requirements are contained in HNF-IP-0842, Volume XVIII, Section 2.5.

2.0 SOURCES

2.1 Requirements

1. DOE-RL, Project Hanford Management Contract with Fluor Daniel Hanford, DE-AC06-96RL13200 Redacted, Modification MO86, October 1, 1999, as amended.
2. Ecology, Hanford Facility RCRA Permit, Dangerous Waste Portion, WA7890008967, as amended.
3. EPA, Ecology, and DOE-RL Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement), as amended.
4. WAC 173-303, "Dangerous Waste Regulations."

2.2 References

1. 46 FR 47426, "Hazardous Waste Management System: Identification and Listing of Hazardous Wastes," September 25, 1991 (sample exclusion).
2. DOE/RL-94-02, "Hanford Emergency Management Plan."
3. DOE/RL letter dated June 14, 1991, "Documents for Regulatory Agency Compliance Inspectors," 91-ERB-018.
4. DOE/RL letter dated May 12, 1994, "Notification of Dangerous Waste Activities, Form 2, For Noncontiguous Dangerous Waste Generating Units and Waste Management Units at the Hanford Site," 94-RPS-104.
5. Ecology Pub #94-120, "Satellite Accumulation," TIM.

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6. Ecology Pub #95-423, "Responsiveness Summary - Amendments to the Dangerous Waste Regulations," Chapter 173-303.
7. Ecology Pub #96-412, "Treatment-by-Generator," TIM.
8. Ecology TIM 82-5, "Effective Date of the 90-day Storage (Accumulation) Requirement."
9. Ecology letter dated February 14, 1989, "Treatability Test Exclusion Notification."
10. Ecology letter dated March 7, 1995, "Listed Waste From Hanford Laboratories."
11. Ecology memo dated January 28, 1994, "Risk Labeling" (RMIS accession #D8118253).
12. Ecology memo dated March 17, 1994, "Risk Labeling Requirements for Drums Containing State-only Wastes."
13. FDH letter dated November 25, 1997, "Request for Information for the Hanford Facility Operating Record," FDH-9760787.
14. HNF-3172, "Hanford Site Liquid Waste Acceptance Criteria."
15. HNF-EP-0063, "Hanford Site Solid Waste Acceptance Criteria."
16. HNF-IP-0842, RPP Administration.
 - Volume VI, Section 1.3, "Environmental Notification."
 - Volume XVI, Section 1.1, "Emergency Management Program."
 - Volume XVIII, Section 1.1, "Inactive Waste Sites."
 - Volume XVIII, Section 2.5, "Waste Designation and Land Disposal Restrictions."
17. HNF-PRO-184, "Information Clearance."
18. WHC meeting minutes dated August 8, 1992, "Location of Satellite Accumulation Areas" (RMIS accession #D8118250).

3.0 IMPLEMENTATION

The provisions of this procedure are effective immediately. Affected personnel shall make themselves aware of the requirements of this procedure.

4.0 REQUIREMENTS

This section discusses general provisions for dangerous waste generator activities (paragraph 4.1), provisions specific to satellite accumulation areas (paragraph 4.2), and 90-day accumulation areas (paragraph 4.3). A satellite accumulation area is defined in Washington Administrative Code (WAC) 173-303-040. Requirements for a 90-day accumulation area are provided in WAC 173-303-200.

4.1 General Provisions

If organizational responsibilities relating to the management of dangerous waste overlap or are unclear, managers shall develop a memorandum of understanding/agreement, operational procedure, or other written instrument identifying the organizational responsibilities for waste handling and material management.

BASIS: PHMC Part 1, Section C.5; best management practice to ensure “cradle to grave” tracking and management of dangerous waste.

Any quantity of dangerous waste generated on the contiguous Hanford Site shall be managed according to large quantity generator requirements. Dangerous waste generating activities taking place off of the contiguous Hanford Site shall be managed under a separate Environmental Protection Agency/State identification number.

BASIS: WAC 173-303-060; U.S. Department of Energy, Richland Operations Office (DOE-RL) letter dated May 12, 1994.

Dangerous waste shall be accumulated only in units/locations identified in WAC 173-303-200, unless the waste is located in a permitted treatment, storage, and/or disposal unit.

NOTE: Accumulation implies generator activities. Storage implies permitted/interim status treatment, storage, and/or disposal activities.

BASIS: WAC 173-303-200(1); definition of storage in WAC 173-303-040.

90-day accumulation period

For waste accumulated in a satellite accumulation area, the 90-day accumulation period shall begin when the quantity for each waste stream reaches 55 gallons of dangerous waste, or 1 quart of acute hazardous waste.

If 30-gallon or smaller containers are used for accumulation, the 90-day accumulation period shall begin as soon as either the container is removed from the satellite accumulation area, or 55 gallons of dangerous waste or 1 quart of acute hazardous waste is reached.

A waste may be transferred as an “on-site movement” from one 90-day accumulation area to another; however, no change will be made to the accumulation date. A waste must be transported to a treatment, storage, and/or disposal unit when the movement is defined as an “off-site shipment.”

For dangerous waste not being accumulated in a satellite accumulation area (e.g., waste not accumulated at or near its point of generation), the 90-day accumulation period shall begin on the date the waste is first generated.

BASIS: WAC 173-303-200; definition of “on-site” in WAC 173-303-040.

A maximum 30-day extension to the 90-day accumulation period may be requested from Ecology, in coordination with Fluor Hanford, Inc. Environment and Regulation, if there is a temporary, unforeseen, and uncontrollable circumstance that will be resolved within the extension period. In certain cases, verbal approvals from Ecology can be obtained with the written request to follow. Upon transfer of the container to a treatment, storage, and/or disposal unit, the organization requesting the 30-day extension shall inform Ecology (e.g., by e-mail).

BASIS: WAC 173-303-200(1)(a); best management practice to document that extension provisions have been met.

Unknown waste

The following from the Ecology Technical Information Memorandum (TIM) 82-5 shall be used together to define an “unknown waste.”

“Unknown waste is defined as, and limited to, wastes the generator truly cannot designate without lab analysis. Specifically, when the generator has no knowledge of the process which produced the waste or of the constituents, characteristics, and criteria of the waste.”

Unknown waste shall be managed as dangerous waste. Unknown waste shall be placed in a 90-day accumulation area and labeled in accordance with Ecology TIM 82-5. Abandoned or improperly managed containers of unknown waste shall be reported immediately to management.

The organization responsible for managing an unknown waste shall immediately begin procedures to sample and test the waste to determine the dangerous waste status. In accordance with Ecology TIM 82-5, the term “immediate” for unknown waste management is defined as, and limited to, “within 24 hours of discovering the unknown waste.” The organization responsible for managing an unknown waste shall act with “due diligence” to acquire the necessary laboratory testing results. Due diligence to acquire necessary testing results means the process to acquire sample(s) has begun.

BASIS: Ecology TIM 82-5; Ecology Publication (Pub) #95-423.

Generator activity records

Documentation shall be maintained as specified in WAC 173-303. Managers responsible for 90-day accumulation areas shall maintain this documentation in a format that is readily retrievable. The documentation shall be maintained to meet the goal of providing compliance inspection documentation requests before the regulator leaves the field that day. Same-day turnaround on requests for extensive amounts of information or on requests for which document search and consolidation of information is required is not always practical or achievable. Documentation also shall be maintained so that applicable document clearance processes have been completed before filing the document/data in the auditable records. Documentation can be stored in various on-site locations, but an index shall be maintained to provide a description of the document/data, location

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of the document/data, and the name and telephone number of the contact to obtain the document/data.

The documentation can be kept in an electronic media format if steps are taken to provide traceability. For example, if the electronic media consists of an electronic/optical image of a hard copy that has been electronically scanned, the electronic/optical image filed under its unique access number does not change and is therefore traceable. In contrast, electronic media consisting of electronic files generated in word processing software on a computer workstation easily can be changed and saved again without a corresponding file name change. Microsoft Word* 97 electronic files also have the property of changing the time and date stamp on the electronic file every time the electronic file is moved. Unless steps are taken with word processing software to document a unique file name and the time and date the electronic file was generated, and to leave the electronic file unmoved and its file name unchanged, such a file may not be traceable.

BASIS: WAC 173-303-170 and -210; DOE-RL letter dated June 14, 1991; best management practice to maintain electronic documentation in a manner consistent with the Hanford Facility Operating Record; best management practice to set a goal that documentation requested during a compliance inspection can be provided to a regulatory agency inspector before the inspector leaves the field that day; best management practice to allow maintenance of generator activity records consistent with treatment, storage and/or disposal unit records.

Records required by WAC 173-303-210 for generator activities shall be maintained by the organization that manages a 90-day accumulation area, or coordinates “milk-run” shipments. Organizations that manage the waste in satellite accumulation areas could request copies of the records maintained for that waste from the 90-day accumulation area managing organization.

- Designation records (e.g., testing results, documented process knowledge regarding the process that generated the dangerous waste and constituents in the waste matrix, and waste inventory sheets) shall be kept for at least five years. If waste will be in on-site long-term storage because the waste is a mixed waste, designation records shall be copied and provided to the treatment, storage and/or disposal unit and maintained in the treatment, storage and/or disposal unit-specific operating record for future management of the waste. Designation records must demonstrate traceability in the designation process.
- Records that demonstrate movement to subsequent waste management units shall be readily accessible.
- Documentation concerning spill reporting (i.e., spill reporting checklist) shall be kept in accordance with HNF-IP-0842, Volume VI, Section 1.3. Documentation concerning spill recovery and how the spill was cleaned up shall be kept by the organization responsible for the spill, and the organization managing the 90-day accumulation area (if not one and the same).

*Word is a registered trademark of Microsoft.

BASIS: Best management practice to ensure generator records are properly maintained for DOE and the generator; best management practice to ensure information about waste placed in long-term storage is properly captured.

Generator activities that do not require permitting

In addition to accumulation activities, the following activities are not subject to permitting requirements and, unless Ecology specifies otherwise, are subject only to the reduced set of requirements identified in the regulations.

- Treating waste in an elementary neutralization unit, totally enclosed treatment unit, or wastewater treatment unit (WAC 173-303-802(5)).
- Treating waste in a tank, container, or containment building under treatment-by-generator rules (WAC 173-303-170(3)(b) and 40 CFR 268.7(a)(5)).
- Adding sorbents to containers under limited circumstances (WAC 173-303-400(2)(c)(vi) and -600(3)(k)).
- Repackaging and sorting waste (WAC 173-303-400(2)(c)(vii) and -600(3)(l)).
- Conducting reclamation of waste (WAC 173-303-120).
- Conducting treatability studies and meeting laboratory requirements (WAC 173-303-071(3)(r) and (s)).

Treatment-by-Generator

Treatment-by-generator activities may be conducted on-site in 90-day accumulation areas. Notification has been accomplished for Hanford Site treatment-by-generator activities as described in a Form 2 submitted to Ecology, "Notification of Dangerous Waste Activities." Documentation required before treatment includes a waste analysis plan defined by 40 CFR 268.7(a)(5) when treatment will meet applicable federal land disposal restriction requirements (refer to HNF-IP-0842, Volume XVIII, Section 2.5.) The waste analysis plan must be submitted to Ecology 30 days before treatment. When de-characterizing a waste, land disposal restriction documentation required by 40 CFR 268.9(d) must be prepared following treatment.

BASIS: WAC 173-303-045; Ecology letter dated February 14, 1989; Ecology Pub # 96-412.

Treatability studies

Samples generated or collected for treatability studies are not subject to the manifesting, labeling, packaging, marking, placarding, or 90-day accumulation standards of WAC 173-303-180, -190, and -200 when managed in compliance with WAC 173-303-071(3)(r) and (s) and an Ecology letter dated February 14, 1989.

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Ecology must be notified 45 days before beginning a treatability study when the treatment technology does not appear on the approved list available from Fluor Hanford Environmental Services. Contact Fluor Hanford Environmental Services before conducting any treatability studies.

Information required by WAC 173-303-071(3)(r) and (s) must be submitted to Ecology annually. Such information shall be provided to Environmental Services by facilities managed under the Project Hanford Management Contract (PHMC). Fluor Hanford Environmental Services will package the information for input to the Hanford Site Treatability Study Report prepared by Pacific Northwest National Laboratory.

BASIS: Ecology letter dated February 14, 1989.

Sample exclusion

Samples collected solely for testing to determine characteristics or composition are excluded from the requirements of WAC 173-303 when managed according to the provisions of WAC 173-303-071(3)(l).

NOTE: When the sample or sample residues exit the sample exclusion (WAC 173-303-071(3)(l)), process knowledge on the waste regarding listed waste shall be used to complete the waste designation.

BASIS: Ecology letter dated March 7, 1995; 46 Federal Register (FR) 47426.

4.2 Satellite Accumulation Areas

Dangerous and mixed waste in containers at satellite accumulation areas shall be managed according to WAC 173-303-200(2). Waste shall be in containers that are:

- “At or near” any point of generation where waste initially accumulates
- Under the control of the operator of the process generating the waste or secured at all times to prevent improper additions of wastes
- In good condition
- Made of, or lined with, materials compatible with the waste accumulated
- Closed, except when necessary to add or remove waste
- Managed in a manner that will not result in rupture or leakage
- Managed according to the special requirements of WAC 173-303-630(8)(a) for reactive waste, and WAC 173-303-630(9)(a) and (b) for incompatible waste
- Managed according to the labeling and marking requirements of WAC 173-303-200(1)(d).

At or near normally is defined as in the same room as the waste generating process. The following are exceptions for field maintenance organizations and for operational restrictions:

Field maintenance organizations. For field maintenance organizations whose personnel (such as painters and electricians) perform work in the field that generates dangerous waste, satellite containers located at the maintenance organization's main work station are considered at or near. Waste generated in the field shall be brought to the main work station.

Operational restrictions. If a satellite container cannot be in the same room as the waste generating process because of operational restrictions (such as waste minimization rules, radiological controls, fire protection requirements), the container should be placed as near as possible to the waste source. The generator shall understand the operational restriction(s) involved and be able to justify the container placement to an inspector.

BASIS: Ecology Pub #94-120; Westinghouse Hanford Company (WHC) meeting minutes dated August 8, 1992.

List of satellite accumulation areas

A centralized list of satellite accumulation areas for activities conducted under the RPP (that are located on the Hanford Site) shall be maintained. The list shall be updated by Waste Management Services. The list is generated from the Solid Waste Information Tracking System (SWITS); SWITS report number SWIR130. The update shall be performed within seven working days after the information becomes available. A "temporary" satellite accumulation area is not required to be identified on the list. Temporary is defined as being set up and dismantled or otherwise moved within the space of seven working days.

BASIS: Best management practice to ensure appropriate waste management.

Spill and emergency response considerations

Managers responsible for satellite accumulation areas shall address and make provisions for adequate spill response and emergency response considerations.

BASIS: Best management practice to ensure dangerous and mixed waste spills are cleaned up in accordance with WAC 173-303-145.

Inventory sheets

Container inventory sheets shall be used if waste streams are aggregated in containers. For waste streams that are not aggregated, waste designation paperwork can be completed without a container inventory sheet; the organization managing the waste may elect whether or not to use a container inventory sheet. Entries on container inventory sheets shall be dated and either initialed or signed. To make a change on an inventory sheet, a single line shall be drawn through an entry and the correct information entered. Changes on the inventory sheet shall be indicated by dating and either initialing or signing the correction. "Whiteout" methods for corrections shall not be used.

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BASIS: Best management practice to ensure a proper waste designation is performed and to ensure records are maintained in accordance with standard industry practices.

Satellite accumulation area discontinuation or relocation

If a decision is made to discontinue or relocate a satellite accumulation area, the organization managing the satellite accumulation area shall transfer the waste to a 90-day accumulation area or treatment, storage and/or disposal unit and perform the following:

- Ensure all postings are removed and all dangerous waste and associated equipment are cleaned up and removed from the satellite accumulation area.
- Delete reference to waste streams and the satellite accumulation area in emergency preparedness documentation (e.g., facility boards, building emergency plan, etc.) and any other waste management documentation.
- Document decision-making information and remedial actions taken to clean up and close the satellite accumulation area.
- Modify the list of satellite accumulation areas managed under the PHMC.

BASIS: Best management practice to ensure proper closure of satellite accumulation areas.

4.3 90-Day Accumulation Areas

Operation of a 90-day accumulation area shall comply with WAC 173-303-170 and WAC 173-303-200(1).

NOTE: The following requirements are tailored towards container management. As necessary, contact Environmental Services for information on specific requirements pertaining to tank systems or containment buildings.

List of 90-day accumulation areas

A centralized list of 90-day accumulation areas for activities conducted under the RPP (that are located on the Hanford Site) shall be maintained. The list shall be updated by the Waste Management Services manager or delegate for an organization’s area of responsibility using the SWITS. The SWITS report number for this list is SWIR130. The update shall be performed within seven working days after the information becomes available. A “temporary” 90-day accumulation area is not required to be identified on a list. Temporary is defined as being set up and dismantled or otherwise moved within the space of seven working days.

BASIS: Best management practice to ensure appropriate waste management.

Inspections

If a 90-day accumulation area is listed as active on the list of 90-day accumulation areas, the area shall be inspected **weekly**, even if no waste is present. If no waste is present, the inspector shall enter “No waste on pad”, or equivalent language, next to the criteria for containers on the inspection record.

BASIS: Best management practice for maintaining weekly inspection records.

When ignitable (D001) or reactive (D003) waste has been managed, the 90-day accumulation area shall be inspected annually by management/personnel in the presence of the Hanford Fire Department in accordance with WAC 173-303-395(1)(d).

BASIS: Best management practice for implementing WAC 173-303-395(1)(d).

Marking and labeling containers

The date that the 90-day accumulation period begins shall be marked on each container. The date shall be clearly visible for inspection. The container shall be marked with the words “hazardous waste” or “dangerous waste”. The container shall be marked or labeled to identify the major risk(s), in accordance with the following:

- State-only dangerous waste: The words “hazardous waste” or “dangerous waste” are sufficient.
- Federal hazardous waste: The U. S. Department of Transportation hazard class label is sufficient except for radioactive labels. When the waste is radioactive, a second major risk label must be present to indicate the chemical hazard. In addition, when the waste is a class 9 waste, a TOXIC label shall be used while accumulating and storing the waste on-site. “Derived-from” listed wastes and “toxicity characteristic” wastes usually fall into the class 9 division.

BASIS: Ecology memo dated January 28, 1994; Ecology memo dated March 17, 1994.

Contingency plans

There is one contingency plan at the Hanford Site consisting of site-wide and treatment, storage, and/or disposal unit-specific components. Managers responsible for treatment, storage, and/or disposal units shall determine the location where contingency plan documentation shall be maintained. This location shall have the site-wide documentation (DOE/RL-94-02) and treatment, storage, and/or disposal unit-specific documentation (except for emergency coordinator names and home telephone numbers that are maintained at the Hanford Patrol Operations Center).

Site-wide and treatment, storage, and/or disposal-unit specific documentation shall be at location(s) appropriate for unit operations. Documentation can be combined for more than one unit. Building emergency directors and building wardens overseeing dangerous or mixed waste activities shall determine if an incident warrants “implementation of the contingency plan”, except for

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transportation incidents outside the scope of building emergency plans, and supplemental contingency plans. The emergency duty officer shall determine if an incident warrants implementation of the contingency plan for transportation incidents outside the scope of building emergency plans and supplemental contingency plans.

NOTE: Refer to HNF-IP-0842, Volume XVI, Section 1.1, for discussion on how contingency planning requirements are met within the emergency preparedness program. In accordance with DOE/RL-94-02, Section 1, the approach to maintaining emergency coordinator names and home telephone numbers used to address HF RCRA Permit, Condition II.A.4, shall be used for generator activities subject to contingency planning requirements.

BASIS: Best management practice to ensure a consistent emergency preparedness program between treatment, storage, and/or disposal units and generator activities; HF RCRA Permit, Condition II.A.4; DOE/RL-94-02 Section 1.1 and Appendix A.

Waste analysis plans

Waste analysis plans usually are not required to manage dangerous waste under generator requirements. When an organization performs treatment-by-generator activities in 90-day accumulation areas, waste analysis plans are required under certain circumstances.

BASIS: WAC 173-303-045; WAC 173-303-200(1)(f); 40 CFR 268.7(a)(5).

90-day accumulation area discontinuation

After deciding to discontinue a 90-day accumulation area, the organization managing the area shall transfer the waste to another 90-day accumulation area or treatment, storage, and/or disposal unit and:

- Ensure all postings are removed and all dangerous waste and associated equipment are cleaned up and removed from the 90-day accumulation area in accordance with WAC 173-303-200(1)
- Delete reference to waste streams and the 90-day accumulation area in emergency preparedness documentation (e.g., facility boards, building emergency plan, etc.) and any other waste management documentation
- Document all decision making information and remedial actions taken to clean up and close the 90-day accumulation area
- Modify the list of 90-day accumulation areas managed under the PHMC
- Follow HNF-IP-0842, Volume XVIII, Section 1.1, referring to Tri-Party Agreement MP-014 for the completion of the Environmental Site Information form.

BASIS: Best management practice to ensure proper closure of 90-day accumulation areas.