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PART V, CLOSURE UNIT GROUP 26
LLBG CLOSING UNITS "GREEN ISLANDS"

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PART V, CLOSURE UNIT GROUP 26

LLBG CLOSING UNITS “GREEN ISLANDS” CONDITIONS

UNIT DESCRIPTION

A waste management unit represents any location within the boundary of the Hanford Site that may require action to mitigate a potential environmental impact. This would include all solid waste management units (SWMUs) as specified under Resource Conservation and Recovery Act (RCRA) Section 3004(u). [Hanford Federal Facility Agreement and Consent Order (HFFACO) Action Plan Section 3.1.] Hanford waste management units are listed in Appendix C of the HFFACO.

A past-practice unit is a waste management unit where wastes or substances (intentionally or unintentionally) have been disposed and that is not subject to regulation as a TSD unit. Due to the relatively large number of past-practice units at the Hanford Site, a process has been established for organizing these units into groups called operable units (OUs). The concept of operable units is to group the numerous units into manageable components for investigation and response action and to prioritize the cleanup work to be done at the Site. [HFFACO Action Plan Section 3.3.]

There are 24 radioactive solid waste burial grounds in the central part (200 Area) of the Hanford facility. HFFACO Action Plan Appendix C organizes the 24 into the 200-SW-2 OU. HFFACO Appendix C designates the unit type as “burial ground.”

The burial grounds were generally constructed as individual trenches; there are an estimated 333 total trenches. Radioactive mixed waste was disposed at at a few locations within individual trenches. The name “Green Islands” was chosen for these locations because the areas of mixed waste disposal are shown in green on maps showing their locations. Mixed waste was disposed in portions of 9 trenches within 5 burial grounds (Table 1). In addition, mixed waste was retrievably stored within portions of 4 burial grounds (Table 1).

Table 1: Storage and Disposal of Mixed Waste by Trench

TSD Burial Ground	Retrievably Stored Waste (RSW) Trench #	Disposed Mixed Waste "Green Island" Trench #
218-E 10		9
218-E-12B	17, 27	
218-W-3A	1, 4, 5, 6, 8, 10, 15, 17, 23, 30, 32, 34, 6S, 9S	19, 6S
218-W-3AE		5, 8
218-W-4B	7, 11, 14 (caissons)	
218-W-4C	1, 4, 7, 20, 24, 29	NC, 14, 58
218-W-5		22

Three types of actions will occur in contiguous locations within the 200-SW-2 burial grounds:

1. Retrieval of Retrievably Stored Waste (RSW);
2. Investigations and corrective/remedial actions for releases and potential releases from any of the 25 burial grounds.
3. Closure activities for disposed mixed waste.

- 1 Ecology considers it prudent to coordinate permit conditions for these three actions.
2 First, retrieval of RSW must be completed to allow for closure and corrective/remedial action. This will
3 be done pursuant to schedules and requirements of the HFFACO M-091 milestone series.
4 Second, alternatives for corrective and remedial actions will be developed pursuant to HFFACO
5 milestones for the 200-SW-2 OU.
6 Third, Ecology intends to use the results of the 200-SW-2 OU investigation and alternatives development
7 to develop permit conditions for closure that are coordinated with corrective action (and remedial action
8 under CERCLA). The HFFACO milestone M-15-93B, which are incorporated into the Permit by
9 reference in Part IV, requires a RCRA Facility Investigation/ Corrective Measure Study and Remedial
10 Investigation/ Feasibility Study (RFI/CMS & RI/FS) Report for the 200-SW-2 operable unit. HFFACO
11 Action Plan Section 5.5 requires that the RFI/CMS closure document will be structured such that
12 dangerous waste closure and post-closure requirements [for the Green Islands] can be readily identified
13 for a separate review/approval process and dangerous waste closure/post-closure requirements can be
14 incorporated into the dangerous waste permit.
15 The dangerous waste permit conditions are structured as a compliance schedule and are shown below.

16 **LIST OF ADDENDA**

17	Addendum A	Part A Form, dated October 1, 2008.
18	Addendum B	Sampling and Analysis Plan – Reserved
19	Addendum C	Process Information
20	Addendum D	Groundwater Monitoring Plan
21	Addendum E	Security - Reserved
22	Addendum F	Preparedness and Prevention – Reserved
23	Addendum G	Personnel Training
24	Addendum H	Closure Plan and Post-Closure Plan – Reserved
25	Addendum I	Inspection
26	Addendum J	Contingency Plan – Reserved

27 **DEFINITIONS**

28 Reserved

29 **ACRONYMS**

30	CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
31	HFFACO	Hanford Federal Facility Agreement and Consent Order
32	RFI/CMS & RI/FS	RCRA Facility Investigation/ Corrective Measure Study & Remedial
33		Investigation/ Feasibility Study
34	RCRA	Resource Conservation and Recovery Act
35	SWMU	Solid Waste Management Unit
36	USDOE	Department of Energy

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- 1 **V.26.A COMPLIANCE WITH PERMIT CONDITIONS**
- 2 **V.26.A.1** The Permittees will comply with all permit conditions in this Chapter and its addenda in
3 addition to the applicable requirements in Part I and Part II of the Hanford Facility
4 Dangerous Waste Permit.
- 5 **V.26.B RETRIEVABLY STORED WASTE**
- 6 **V.26.B.1** The Permittees must prepare the 218-E-12B, 218-W-3A, 218-W-4B, and 218-4C burial
7 grounds for closure and corrective action, by retrieving Retrievably Stored Waste (RSW)
8 from those burial grounds.
- 9 **V.26.B.2** The HFFACO definitions for “Retrieval of CH RSW” and “Retrieval of RH RSW”
10 included in HFFACO milestone M-91-00 are incorporated herein by reference under the
11 terms of Permit Condition I.A.4.
- 12 **V.26.B.3** Permittee shall comply with the requirements and schedules of the HFFACO milestones
13 M-091-40, M-091-40X, M-091-41, M-091-41A for retrieving CH and RH RSW, which
14 are incorporated herein by reference under the terms of Permit Condition I.A.4.
- 15 **V.26.C CLOSURE**
- 16 **V.26.C.1** Reserved – see unit description.
- 17 **V.26.D GENERAL WASTE MANAGEMENT REQUIREMENTS**
- 18 All waste analysis required by this chapter will be conducted according to the approved
19 Sampling and Analysis Plan.
- 20 Changes to the analytical methods used in this permit will require prior Ecology approval
21 according to [WAC 173-303-830](#), Permit Changes.
- 22 **V.26.E GROUNDWATER MONITORING REQUIREMENTS FOR REGULATED UNITS**
- 23 **V.26.E.1** The Permittees will implement the groundwater monitoring plans contained in
24 Addendum D to this Chapter. Compliance with this plan will satisfy the groundwater
25 protection and monitoring requirements cited in Permit Condition II.F 1.
- 26 **V.26.E.2 Recordkeeping and Reporting**
- 27 The Permittees will place documentation of all work conducted pursuant to this Chapter
28 including results of all monitoring, testing, or analytical work and associated quality
29 assurance and quality control data in the Hanford Facility Operating Record, as required
30 by Permit Condition II.I.2. [[WAC 173-303-380](#)]
- 31 **V.26.F SECURITY**
- 32 **V.26.F.1** The Permittees will post signs at access points to the closing LLBGs stating the following
33 (or an equivalent legend): Danger – Unauthorized Personnel Keep Out. These signs will
34 be written in English, legible from a distance of 7.6 meters (25 feet), and visible from all
35 angles of approach. [[WAC 173-303-310](#)(2)(a)]
- 36 **V.26.G PREPAREDNESS AND PREVENTION**
- 37 Reserved
- 38 **V.26.H CONTINGENCY PLAN**
- 39 Reserved

1 **V.26.I INSPECTIONS**

2 **V.26.I.1** The Permittees will implement the inspection requirements of Addendum I and Permit
3 Condition II.X until closure of the unit. [[WAC 173-303-320\(2\)](#)]

4 **V.26.I.2** In the event of any potential threats to human health or the environment, the Permittees
5 will increase inspections to quarterly until documentation that the threats are removed has
6 been reviewed and approved by Ecology.

7 **V.26.J TRAINING PLAN**

8 The Permittees will comply with the training requirements as described in Permit
9 Condition II.C (Personnel Training), Permit Attachment 5 (Hanford Facility Personnel
10 Training Plan), and Addendum G (Personnel Training).

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