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FACT SHEET
PART V, CLOSURE UNIT GROUP 26
LOW-LEVEL BURIAL GROUNDS CLOSURE UNITS "GREEN ISLANDS"

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FACT SHEET

PART V, CLOSURE UNIT GROUP 26

LOW-LEVEL BURIAL GROUNDS CLOSURE UNITS “GREEN ISLANDS”

UNIT DESCRIPTION

In general, the Low-level Burial Grounds (LLBG), located in Hanford’s 200 Area, consists of trenches where radioactive, non-dangerous waste is buried. This radioactive waste is not regulated by Washington State dangerous waste regulations, WAC 173-303. Therefore, the Hanford Facility Dangerous Waste Permit does not cover these trenches and the waste in them. However, there are discrete areas within the LLBG where regulated mixed waste (waste with both a radioactive and dangerous waste component) was disposed in unlined trenches. (The practice of disposing mixed waste to unlined trenches was discontinued in 1996. All radioactive and mixed waste is now disposed into lined trenches.)

There are also areas within the LLBG where waste suspected of containing specific types and concentrations of radioactive elements was stored under a layer of dirt in the 1970s and 1980s. The intention was to retrieve the waste at a later date, when a national repository for transuranic waste was established. Some of this retrievably stored waste (RSW) is also mixed waste subject to the dangerous waste regulations.

The LLBG Closure Units “Green Islands” refer to these discrete portions of the LLBG that contain mixed waste subject to WAC 173-303. The Green Islands do not include the entire trench, but only the portion of the trench where the regulated waste is buried.

Two other areas within the LLBG are subject to regulation under this permit. The lined disposal trenches (Trenches 31 and 34) and the naval reactor compartment disposal trench (Trench 94) are operating disposal units included in Part III of this permit.

TYPE AND QUANTITY OF WASTE

The LLBG were constructed as groups of individual trenches. There are over 300 trenches in 24 burial grounds. The Green Islands are found in nine trenches within 5 burial grounds. In addition, the retrievably stored waste is found within portions of 4 burial grounds. See Table 1 for locations of regulated mixed waste.

Table 1: Storage and disposal of mixed wastes by trench

Treatment, Storage, and Disposal Burial Ground	Retrievably Stored Waste Trench number	Disposed Mixed Waste Green Islands Trench number
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

1 **BASIS FOR PERMIT CONDITIONS**

2 This permit is intended to protect human health and the environment while ensuring proper management
3 of waste at LLBG Closure Units Green Islands. The permit addenda are incorporated into this permit and
4 are enforceable by reference. The permit includes requirements for complying with environmental
5 standards and maintaining and modifying the permit. The permit conditions address specifics such as
6 personnel training, adequate staffing, process controls, and inspection requirements.

7 **GENERAL WASTE MANAGEMENT**

8 Many waste management units, such as the LLBG, have been organized into operable units at Hanford.
9 Due to the relatively large number of past-practice units at the Hanford Site, a process was established for
10 organizing these units into groups called operable units (OUs). The concept of operable units is to group
11 the numerous units (by geographic area and specific concerns) into manageable components for
12 investigation and response action and to prioritize the cleanup work to be done at the Site.

13 The Tri-Party Agreement (TPA) Action Plan Appendix C places the burial grounds into the 200-SW-2
14 Operable Unit (OU). The 200-SW-2 OU includes all portions of the burial grounds, including the Green
15 Islands and the solely radioactive areas as well.

16 **CLOSURE AND POST-CLOSURE**

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

- 18 1. Retrieval of RSW.
- 19 2. Investigations and corrective/remedial actions for releases and potential releases from any of the
20 24 burial grounds.
- 21 3. Closure activities for disposed mixed waste.

22 Ecology considers it prudent to coordinate permit conditions for these three actions.

23 First, retrieval of RSW must be completed to allow for closure and corrective and remedial action. This
24 will be done under the schedules and requirements of the TPA M-091 milestone series.

25 Second, alternatives for corrective and remedial actions will be developed to meet the TPA milestones for
26 the 200-SW-2 OU.

27 Third, Ecology intends to use the results of the 200-SW-2 OU investigation and alternatives development
28 to develop permit conditions for closure that coordinate with corrective action (and remedial action under
29 CERCLA).

30 TPA Agreement Milestone M-15-93B (incorporated into the Permit by reference in Part IV) requires a
31 RCRA Facility Investigation/ Corrective Measure Study (RFI/CMS) and Remedial Investigation/
32 Feasibility Study Report for the 200-SW-2 OU. The TPA Action Plan, Section 5.5, describes a process to
33 develop closure plans from RFI/CMS reports.

34 **GROUNDWATER**

35 The Permittees are now implementing interim status groundwater monitoring plans. This permit will
36 convert those plans into a final groundwater monitoring plan, as required by Condition V.26.E.1.
37 Compliance with this plan will satisfy the groundwater protection and monitoring requirements in
38 Condition II.F 1. The interim groundwater monitoring plans are in Addendum D.

39 **WASTE ANALYSIS REQUIREMENTS**

40 The Permittees must follow the approved Sampling and Analysis Plan for all required waste analysis.
41 Changes to the analytical methods will require prior Ecology approval through the permit change process
42 in WAC 173-303-830.

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RECORDKEEPING AND REPORTING

Condition II.I.2 requires the Permittees to place documentation of all work in the Hanford Facility Operating Record. This includes results of all monitoring, testing, or analytical work and associated quality assurance and quality control data.

SECURITY

The trenches are within Hanford’s secured area. Access to the unit is subject to the general security provision of Condition II.L. Security provisions, access controls, and signage specific to this unit will comply with the requirements of [WAC 173-303-310](#).

CONTINGENCY PLAN

Since the Green Islands no longer accept waste and are not in operation, there is no need for a unit-specific contingency plan. However, to ensure the safety of Hanford workers and protect public health and the environment, the Permittees must follow contingency planning and emergency management requirements for Hanford site-wide emergency response. Condition II.A describes the requirements for facility contingency planning and refers to Permit Attachment 4, Hanford Emergency Management Plan.

INSPECTIONS

The Permittees will follow the inspection schedule in Addendum I and Condition II.X until closure of the unit. In the event of any potential threats to human health or the environment, the Permittees will increase inspections to quarterly until the threats are removed.

TRAINING

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

REQUESTED VARIANCES OR ALTERNATIVES

WAC 173-303-610(4)(b) requires a site be closed within 180 days of its last receipt of waste. However, Ecology has agreed it is safer to prepare this unit’s closure along with the studies ongoing for the remainder of the trenches. We propose to use the results of the 200-SW-2 operable unit investigation to develop permit conditions for closure. The dangerous waste permit conditions for closing burial grounds at Hanford will be written using a compliance schedule.

STATE ENVIRONMENTAL POLICY ACT (SEPA) DETERMINATION

The SEPA determination for this unit is in the Hanford-Wide Permit Fact Sheet.

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