FACT SHEET

PART V, CLOSURE UNIT GROUP 22, 216-B-3 MAIN POND
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UNIT DESCRIPTION

The 216-B-3 Main Pond (Main Pond) treatment, storage, and disposal unit is an open, man-made earthen percolation unit. It is near Hanford’s 200 East Area, outside the perimeter fence. The 216-B-3 Main Pond is regulated as an unlined dangerous waste surface impoundment. It is no longer in operation.

The 216-B-3 Main Pond was mostly used to dispose of cooling water discharges from PUREX and B Plant. Other effluent sources included chemical sewer discharges and steam condensates from the following:

- PUREX
- B Plant
- 242-A Evaporator
- 242-B Evaporator
- 244-AR Vault
- 244-BXR Vault
- 244-CR Vault
- BY Tank Farm
- 241-A Aging Waste Ventilation System Complex
- 283-E Water Treatment Facility
- 284-E Powerhouse

The 216-B-3 Main Pond consists of the 216-B-3 Pond and 216-B-3-3 Ditch.

- The 216-B-3 Pond covers an area of 14 hectares (34 acres) to a depth of 0.6 to 2.4 meters (2 to 8 feet). It initially received effluent from the 216-B-3-1 and 216-B-3-2 ditches. It later received effluent from the 216-B-3-3 Ditch, which was excavated in 1970 to replace the 216-B-3-2 Ditch.
- The 216-B-3-3 Ditch was an open, unlined earthen ditch approximately 6 meters (20 feet) wide at ground level, 1.8 meters (6 feet) deep, and 1,130 meters (3,700 feet) long. It received effluent water from the 216-B-2-3 Ditch and the 216-A-29 Crib. (The 216-A-29 Ditch is in a separate Closure Unit [Group 11]).

Wastewater discharged into the 216-B-3-3 Ditch flowed to the 216-B-3 Pond, where it evaporated or infiltrated into the ground. The 216-B-3 Main Pond received wastewater from April 1945 until May 1994.

216-B-3 Pond consists of the 216-B-3 Pond and three expansion ponds (3A, 3B, and 3C). The three expansion ponds were considered part of this unit until 1993, when the Hanford Dangerous Waste Permit application (Part A) was modified to allow different closure options for the expansion ponds and the main pond. “Operations at the expansion ponds ended on July 31, 1995.”

216-B-3 Pond and the 216-B-3-3 Ditch were decommissioned in 1994. They were backfilled with coarse-grained material and then the pond was covered with fine-grained sediment.

TYPE AND QUANTITY OF WASTE

The Permittees have investigated potential soil and groundwater contamination at the 216-B-3 Main Pond through sources such as:
• Remedial investigations.
• Groundwater monitoring data.
• Available historical process operations and disposal knowledge.
• Waste site summary reports from Hanford’s Waste Information Data System (WIDS) database.
• Documents referenced in DOE/RL-2008-59, Interim Status Groundwater Monitoring Plan for the 216-B-3 Pond.

The nature and quantity of mixed waste previously managed through this waste site is known and is identified on the Part A form. Generally, the waste consisted of dilute quantities of inorganic and organic chemicals.

Two Tri-Party Agreement milestones address this unit. Milestones M-037-03 requires the Permittees to submit a revised closure plan by April 30, 2012. Milestone M-037-10 requires the Permittees to close the 216-B-3 Main Pond by September 30, 2016.

Interfacing RCRA and CERCLA Closure Requirements

The State of Washington’s Dangerous Waste Regulations allow the director of the Department of Ecology to substitute alternative groundwater monitoring requirements for the requirements prescribed for regulated units under WAC 173-303-645 when the regulated unit is situated amongst other solid waste management units or areas of concern and it is likely that releases from the regulated unit and the solid waste management unit have comingled. Ecology can accept the CERCLA groundwater monitoring program as required by the HFFACO to fulfill its RCRA requirements if Ecology determines that the groundwater program will support a remedy that is protective of human health and the environment. The criteria for meeting protectiveness are the performance standard in WAC 173-303-610(2)(a).

Releases of contaminants to groundwater from this regulated unit have occurred and these releases have comingled with plumes from solid waste management units. Therefore, the Permittees can choose to request approval for the use of alternative groundwater monitoring protection requirement provision in WAC 173-303-645(1)(e) as specified in condition II.F.2.

Condition V.22.E.2 requires the Permittees to submit a final status groundwater monitoring plan in conjunction with a final closure plan. The final closure plan along with permit conditions will qualify as the enforceable document.

CLOSURE AND POSTCLOSURE

Milestone M-037-03 requires the Permittees to submit a revised closure plan, by April 30, 2013, that meets the closure plan requirements described in WAC 173-303-610. Condition V.22.B.1 requires that the Permittees submit a revised closure plan and post-closure plan according to the schedule in Milestone M-037-03. Condition V.22.B.7 requires submittal of a revised sampling and analysis plan when a closure plan is submitted.

Ecology may accept the final CERCLA remedial actions for the 200-BP-5 and 200-PO-1 Operable Units, including institutional controls, as satisfying the contingent post-closure care and maintenance requirements of WAC 173-303-650(6)(c)(i) and WAC 173-303-610(8). A post-closure groundwater monitoring plan will be submitted with a final closure plan.

Since the 216-B-3 Main Pond is nonoperational and does not currently accept waste, a Waste Analysis Plan is not warranted. However, a sampling and analysis plan may still be required as part of final closure activities.
Closure Activities

Conditions V.22.B.2 through V.22.B.6 list what the Permittees must, at a minimum, include in the closure plan. Requirements include a schedule for closure, identification of cleanup levels and standards, and a sampling and analysis plan.

The Permittees will comply with the closure requirements of WAC 173-303-610(5) for cleanup of underlying soils.

Groundwater

Condition V.22.E.1 requires the Permittees to implement the interim status groundwater monitoring plan in Addendum D. Condition V.22.E.2 requires the Permittees to submit a final status groundwater monitoring plan with the closure plan that is required in Condition V.22.B.1. Interfacing of CERCLA and RCRA for groundwater is discussed above.

RECORDKEEPING AND REPORTING

Condition V.22.F requires the Permittees to place documentation of all work conducted (such as results of monitoring, testing, and analytical work and quality assurance and control data) in the Hanford Facility Operating Record.

SECURITY

The 216-B-3 Main Pond is within the secured area of Hanford. Access to the unit is subject to the general security provision of Condition II.L. Security provisions, access controls, and signage specific to this closure unit will comply with the requirements of WAC 173-303-310.

CONTINGENCY PLAN

Because the 216-B-3 Main Pond no longer accepts liquid waste and is not in operation, there is no need for a unit-specific contingency plan. However, to ensure the safety of Hanford workers and to protect public health and the environment during closure of the unit, the Permittees must follow contingency planning and emergency management requirements for Hanford.

Condition II.A describes the requirements for facility contingency planning, and further refers to the requirements of Attachment 4, Hanford Emergency Management Plan.

INSPECTIONS

Addendum I contains the inspection schedule. Since this unit is inactive, the permit requires an inspection once a year. If any potential threats to human health or the environment arise, the Permittees will increase inspections to quarterly until the threats are removed.

TRAINING

The Permittees will include the training requirements in Addendum G of this permit in a written training plan, as required by Condition II.C.1 and WAC 173-303-330(2)(a) and (b). The plan will include the job classifications identified for 216-B-3 Main Pond closure work.

REQUESTED VARIANCES OR ALTERNATIVES

Condition V.22.B.1 contains a schedule for submitting a revised closure plan. The schedule is justified because the removal and remediation work will take longer than the 180 days required by WAC 173-303-610(4)(b). Milestone M-037-03 sets April 30, 2013, as the date Permittees must submit a revised closure plan, contingent closure plan, and post-closure plan.

STATE ENVIRONMENTAL POLICY ACT (SEPA) DETERMINATION

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