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FACT SHEET
PART V CLOSURE UNIT GROUP 11, TREATMENT, STORAGE, AND DISPOSAL UNIT
216-A-29 DITCH

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1 **FACT SHEET**

2 **PART V CLOSURE UNIT GROUP 11, TREATMENT, STORAGE, AND DISPOSAL UNIT**
3 **216-A-29 DITCH**

4 **UNIT DESCRIPTION**

5 The 216-A-29 Ditch is an unlined, man-made surface impoundment. It is in the 200-EA-1 Operable
6 Unit. The Permittees created the 216-A-29 Ditch treatment, storage, and disposal (TSD) unit to dispose
7 of chemical sewer discharges from the Plutonium-Uranium Extraction (PUREX) Facility.

8 The ditch is about 1.8 meters wide and 1,097 meters long (6 feet by 3,600 feet). It varies in depth from
9 0.6 to 0.9 meters (2 to 3 feet) at the south end of the ditch to 5 meters (16 feet) at the north end.

10 The 216-A-29 Ditch began receiving chemical sewer waste from PUREX operations in November
11 1955. It has not received waste since 1986. The Permittees stabilized the ditch in three phases from
12 July 1991 to October 1991.

13 This ditch is currently backfilled with material from the ditch sides and spoils piles in the bottom. Both
14 portions of the 216-A-29 Ditch, inside and outside the 200 East Area security fence, have been
15 revegetated. The Permittees has posted signs indicating that the 216-A-29 Ditch is an underground
16 radioactive material area.

17 **TYPE AND QUANTITY OF WASTE**

18 The Permittees have studied soil and groundwater contamination at the 216-A-29 Ditch through:

- 19 • Remedial investigations.
- 20 • Groundwater monitoring.
- 21 • Knowledge of historical process operations and disposal.
- 22 • Waste site summary reports from Hanford's Waste Information Data System database.
- 23 • References in DOE/RL-2008-58, *Interim Status Groundwater Monitoring Plan for the 216-A-*
24 *29 Ditch*.

25 The Permittees know the general nature and quantity of mixed waste previously managed through this
26 waste site. It is on the Part A Form. Generally, the waste consisted of dilute quantities of inorganic and
27 organic chemicals.

28 Flow from the chemical sewer at PUREX was continuous, with a volume discharge range of 950 to
29 4,164 liters per minute (250 to 1,100 gallons per minute). An unknown amount of effluent discharged
30 to the 216-A-29 Ditch infiltrated the soil and flowed along the course of the ditch.

31 **BASIS FOR PERMIT CONDITIONS**

32 Two Tri-Party Agreement (TPA) milestones affect cleanup of the 216-A-29 Ditch. Milestone M-037-
33 02 requires the Permittees to submit a revised closure plan for the ditch before June 30, 2014.

34 Milestone M-037-10 requires the Permittees to complete the ditch's closure by September, 30, 2020.

35 **Interfacing RCRA and CERCLA Closure Requirements**

36 The State of Washington's Dangerous Waste Regulations allow the director of the Department of Ecology
37 to substitute alternative groundwater monitoring requirements for the requirements prescribed for
38 regulated units under [WAC 173-303-645](#) when the regulated unit is situated amongst other solid waste
39 management units or areas of concern and it is likely that releases from the regulated unit and the solid
40 waste management unit have comingled.

41 Ecology can accept the CERCLA groundwater monitoring program as required by the Tri-Party
42 Agreement to fulfill its RCRA requirements if Ecology determines that the groundwater program will
43 support a remedy that is protective of human health and the environment. The criteria for meeting
44 protectiveness are the performance standard in [WAC 173-303-610\(2\)\(a\)](#).

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

5 Condition V.11.E.2 requires the Permittees to submit a final status groundwater monitoring plan in
6 conjunction with a final closure plan. The final closure plan, along with permit conditions, will qualify as
7 the enforceable document.

8 **CLOSURE AND POST-CLOSURE**

9 Milestone M-037-02 requires submittal of a revised closure plan by June 30, 2014, that meets the
10 closure plan requirements in [WAC 173-303-610](#). Condition V.11.B.1 requires that the Permittees
11 submit a revised closure plan and post-closure plan according to the schedule in Milestone M-037-02.
12 Condition V.11.B.7 requires submittal of a revised sampling and analysis plan at the same time a
13 closure plan is submitted.

14 Ecology may accept, as satisfying the contingent post-closure care and maintenance requirements of
15 [WAC 173-303-650](#)(6)(c)(i) and [WAC 173-303-610](#)(8), the final CERCLA remedial actions for the 200-
16 EA-1 Operable Unit, including institutional controls. [\[WAC 173-303-610\(7\)\]](#) The Permittees must
17 submit a post-closure groundwater monitoring plan with a final closure plan.

18 **Closure Activities**

19 The Permittees will comply with the closure requirements of [WAC 173-303-610](#)(5) for cleanup of
20 underlying soils. Conditions V.11.B.2 through V.11.B.6 list the requirements the Permittees must
21 include, at a minimum, in the closure plan, such as a schedule for closure, identification of cleanup levels
22 and standards, and a sampling and analysis plan.

23 **Groundwater**

24 Condition V.11.E.1 requires the Permittees to follow the interim status groundwater monitoring plan in
25 Addendum D. Condition V.14.E.2 requires the Permittees to submit a final status groundwater
26 monitoring plan with the closure plan required in Condition V.14.B.1. Interfacing of RCRA and
27 CERCLA for groundwater is discussed above.

28 **RECORDKEEPING AND REPORTING**

29 Condition V.11.F requires the Permittees to place documentation of all work conducted, such as results
30 of all monitoring, testing, analytical work, and quality assurance and control data, be placed in the
31 Hanford Facility Operating Record, per Condition II.I.2.

32 **SECURITY**

33 The 216-A-29 Ditch is within the secured area of Hanford. Access to the unit is subject to the general
34 security provision of Condition II.L. Security provisions, access controls, and signage specific to this
35 closure unit will comply with the requirements of [WAC 173-303-310](#).

36 **CONTINGENCY PLAN**

37 Since the 216-A-29 Ditch no longer accepts liquid waste and is not in operation, there is no need for a
38 unit-specific contingency plan. However, to ensure a safe working environment for Hanford Site
39 personnel and to protect public health and the environment during closure of the 216-A-29 Ditch, the
40 Permittees must follow contingency planning and emergency management requirements implemented
41 for Hanford. Condition II.A describes the requirements for facility contingency planning and refers to
42 the requirements of Permit Attachment 4, *Hanford Emergency Management Plan*.

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1 **INSPECTIONS**

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

5 **TRAINING**

6 The Permittees will include the training requirements established in Addendum G in a written training
7 plan, as required by Condition II.C.1 and [WAC 173-303-330](#)(2)(a) and (b). The plan will include the job
8 classifications identified for the 216-A-29 Ditch closure work.

9 **REQUESTED VARIANCES OR ALTERNATIVES**

10 Condition V.11.B.1 requires a schedule for submitting a revised closure plan. The schedule is justified
11 because the removal and remediation work will take longer than the 180 days required by [WAC 173-303-](#)
12 [610](#)(4)(b). Milestone M-037-02 sets a deadline of June 30, 2014, for the Permittees to submit a revised
13 closure plan, contingent closure plan, and post-closure plan.

14 **STATE ENVIRONMENTAL POLICY ACT (SEPA) DETERMINATION**

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

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