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PART V, CLOSURE UNIT GROUP 11 CONDITIONS
216-A-29 DITCH

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PART V, CLOSURE GROUP 11 CONDITIONS

216-A-29 DITCH

UNIT DESCRIPTION

The 216-A-29 Ditch is a man-made earthen percolation unit, regulated as an unlined (non-compliant) dangerous waste surface impoundment, and located east of the 200 East Area. This ditch was used to manage chemical sewer discharges from the separation and concentration processes at the Plutonium-Uranium Extraction (PUREX) Facility located in the 200 West Area. The PUREX Facility chemical sewer operated between November 1955 and October 1991. The 216-A-29 Ditch passed beneath the 200 East Area perimeter fence and ran northeast to the 216-B-3 Ditches, which discharged to the 216-B-3 Pond. Both portions of the 216-A-29 Ditch, located inside and outside the 200 East security fence have been stabilized and revegetated, and the appropriate signage posted (the 216-A-29 Ditch is an underground radioactive material area). Approximately 6,000,000 gallons (22,712,400 liters) a day of waste flow reached the ditch. The 216-A-29 Ditch is estimated to be 1.8 meters (6 feet) wide, 1,097 meters (3,600 feet) long, and varies from 0.6 – 0.9 meters (2 to 3 feet) deep at the south end to approximately 5 meters (16 feet) deep at the north end.

The nature and quantity of mixed waste managed by the 216-A-29 Ditch is known and identified on the Part A Form. Because the 216-A-29 Ditch has received a known, maximum final volume of dangerous waste, and the unit will not receive any additional non-dangerous waste, this unit will close according to the requirements and schedules in the approved closure plan in this chapter of the Permit.

The closure of the 216-A-29 Ditch will be coordinated with final Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) remedial actions in the 200 Area. Specifically, soil cleanup will be coordinated with the 200-EA-1 Operable Unit, and groundwater cleanup will be coordinated with the 200-PO-1 Operable Unit in the manner outlined in the *Hanford Federal Facility Agreement and Consent Order* (HFFACO) Action Plan, Section 5.5, and in accordance with schedules in HFFACO Milestones M-037-02 and M-037-10. (*DOE/RL-2008-58, DOE/RL-2006-63, Part A Form*)

LIST OF ADDENDA

- Addendum A Part A Form
- Addendum B Sampling and Analysis Plan – Reserved
- Addendum C Process Information – Reserved
- Addendum D Groundwater Monitoring Plan
- Addendum E Security Requirements - Reserved
- Addendum F Preparedness and Prevention Plan – Reserved
- Addendum G Personnel Training
- Addendum H Closure Plan and Post-Closure Plan – Reserved
- Addendum I Inspection Schedule
- Addendum J Contingency Plan – Reserved

DEFINITIONS

Reserved

ACRONYMS

Reserved

- 1 **V.11.A COMPLIANCE WITH PERMIT CONDITIONS**
2 The Permittees will comply with all permit conditions in this Chapter and its addenda
3 with respect to the applicable requirements in Part I and Part II of the Hanford Facility
4 Dangerous Waste Permit.
- 5 **V.11.B CLOSURE**
- 6 **V.11.B.1** The Permittees will submit a closure plan and post-closure plan in accordance with the
7 schedule specified in HFFACO Milestone M-037-02, which are incorporated by
8 reference herein under the terms of Permit Condition I.A.4 and in compliance with
9 Permit Condition I.C.3. (Attachment 1) As part of the closure plan, the Permittees will
10 address contingent closure and contingent post-closure requirements. The contingent
11 closure and post-closure section will include time frames of when detailed plans of a
12 landfill cover would be submitted for Ecology review and approval and when the
13 construction of the landfill cover would begin once the Permittees have determined the
14 unit cannot meet clean closure standards.
- 15 **V.11.B.1.a** The Permittees will submit site specific biological and cultural resources reviews 90 days
16 before the beginning of the closure process. [[WAC 173-303-815](#)(2)(b)(i)]
- 17 **V.11.B.2** The closure plan and post-closure plan required by V.11.B.1 will include a schedule for
18 closure that will achieve the HFFACO milestone date in Milestone M-037-10, as
19 incorporated above (Attachment 1). This unit will also close under a compliance
20 schedule per [WAC 173-303-815](#)(3)(b).
- 21 **V.11.B.3** The closure plan submitted pursuant to V.11.B.1 will specify dangerous constituents and
22 corresponding closure performance standards to meet the requirements of [WAC 173-303-](#)
23 [610](#)(2)(b)(i) for soils affected by the operations associated with this unit.
- 24 **V.11.B.4** Closure performance standards for soils will satisfy the most stringent (lowest) cleanup
25 level or standard of [WAC 173-340](#), Model Toxics Control Act (MTCA) Cleanup
26 Regulation. The numeric cleanup levels for soils will be calculated according to the
27 MTCA cleanup methods described in [WAC 173-340-700](#) through [WAC 173-340-760](#).
28 Selection of an appropriate MCTA cleanup method will be dependent on the specific
29 cleanup actions required for this site.
- 30 **V.11.B.5** Once the closure plan is incorporated into Addendum H through the permit modification
31 process the Permittees will close the 216-A-29 Ditch according to the requirements in
32 Addendum H. [[WAC 173-303-610](#)(3)(a)]
- 33 **V.11.B.6** The closure plan and sampling and analysis plan will meet the applicable closure and
34 post-closure requirements of [WAC 173-303-610](#) and [WAC 173-303-650](#)(6) pursuant to
35 the requirements of this Chapter.
- 36 **V.11.B.7** In conjunction with the revised closure plan, the Permittees will submit a sampling and
37 analysis plan in accordance with Permit Conditions II.D and the schedule specified in
38 HFFACO Milestone M-037-02, which are incorporated by reference herein under the
39 terms of Permit Condition I.A.4.
- 40 **V.11.B.8** The revised sampling and analysis plan (noted in V.11.B.7) will include, but not be
41 limited to:
- 42 **V.11.B.8.a** Process for identifying contaminants
- 43 **V.11.B.8.b** Quality assurance/quality control project plan
- 44 **V.11.B.8.c** Methods for representative soil sampling

- 1 **V.11.B.8.d** Analysis parameters
- 2 **V.11.B.8.e** Analytical documentation
- 3 **V.11.B.9** The Permittees will conduct all sampling and analysis of environmental media pursuant
4 to the requirements of the sampling and analysis plan.
- 5 **V.11.C** **POST-CLOSURE CARE AND MAINTENANCE**
- 6 Upon certification of unit closure the Permittees will comply with the post-closure plan in
7 Addendum H.
- 8 **V.11.D** **GENERAL WASTE MANAGEMENT REQUIREMENTS**
- 9 **V.11.D.1** All waste analysis required by this chapter will be conducted according to the approved
10 sampling and analysis plan.
- 11 **V.11.D.2** Changes to the analytical methods used in this permit will require prior Ecology approval
12 according to [WAC 173-303-830](#), Permit Changes.
- 13 **V.11.E** **GROUNDWATER MONITORING REQUIREMENTS FOR REGULATED UNITS**
- 14 **V.11.E.1** The Permittees will implement the interim status groundwater monitoring plan until a
15 final status groundwater monitoring plan, as required by Permit Condition V.11.E.2, is
16 incorporated into the Permit. The interim status groundwater monitoring plan for the
17 216-A-29 Ditch is contained in Addendum D to this chapter. (*DOE/RL-2008-58,*
18 *Revision 0, Interim Status Groundwater Monitoring Plan for the 216-A-29 Ditch, March*
19 *2010*)
- 20 **V.11.E.2** The Permittees will submit a final status groundwater monitoring plan in conjunction
21 with a final closure plan as specified in Permit Condition V.11.B.1. The Permittees may
22 choose to submit a final groundwater monitoring plan that complies with the alternative
23 groundwater monitoring protection requirement provision in [WAC 173-303-645](#)(1)(e), as
24 specified in Permit Condition II.F.2.
- 25 **V.11.F** **RECORDKEEPING AND REPORTING**
- 26 The Permittees will place documentation of all work conducted pursuant to this Chapter
27 including results of all monitoring, testing, or analytical work and associated quality
28 assurance and quality control data in the Hanford Facility Operating Record, as required
29 by Permit Condition II.I.2. [[WAC 173-303-380](#)]
- 30 **V.11.G** **SECURITY**
- 31 The Permittees will post signs at access points to the 216-A-29 Ditch stating the
32 following (or an equivalent legend): Danger – Unauthorized Personnel Keep Out. These
33 signs will be written in English, legible from a distance of 7.6 meters (~25 feet), and
34 visible from all angles of approach. [[WAC 173-303-310](#)(2)(a)]
- 35 **V.11.H** **PREPAREDNESS AND PREVENTION**
- 36 Reserved
- 37 **V.11.I** **CONTINGENCY PLAN**
- 38 Reserved
- 39 **V.11.J** **INSPECTIONS**

1 **V.11.J.1** The Permittees will follow the inspection schedule in Addendum I and Permit Condition
2 II.X until closure of the unit.

3 **V.11.J.2** In the event of any potential threats to human health or the environment, the Permittees
4 will increase inspections to quarterly until the threats are removed.

5 **V.11.K TRAINING PLAN**

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

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