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PART VI, POST-CLOSURE UNIT GROUP 1 UNIT-SPECIFIC CONDITIONS
300 AREA PROCESS TRENCHES

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1 **PART VI, POST-CLOSURE UNIT 1 UNIT-SPECIFIC CONDITIONS**

2 **300 AREA PROCESS TRENCHES**

3 The 300 Area Process Trenches (300 APT) became active in 1975. The 300 Area Process Trenches
4 received dangerous waste discharges from research and development laboratories in the 300 Area and
5 from the fuels fabrication process. The effluent had no outlet from the process trenches and either
6 infiltrated into the soil column or evaporated. The estimated annual quantity of waste was 453,592,370
7 liters, and reflects the total quantity of both regulated and non-regulated wastewater that was discharged
8 to the unit in one year, and not a volume of dangerous waste discharged to the unit. This estimate was
9 made because accurate records are unavailable regarding dangerous waste volumes discharged to the
10 trenches. The process trenches were designed to percolate up to 11,356,200 liters (3,000,000 gallons) per
11 day of wastewater, which reflects the maximum volume of water that was discharged daily, rather than
12 the physical capacity of the unit.

13 In 1985, the process trenches gained RCRA interim status, and administrative controls were implemented
14 to eliminate discharges of dangerous wastes to the unit. The waste consisted of state-only toxic,
15 dangerous waste (WT02), discarded chemical product (U210), corrosive waste (D002), chromium
16 (D007), spent halogenated solvents (F001, F002, and F003), and spent nonhalogenated solvent (F005).
17 All discharges to the 300 APT were permanently discontinued in December 1994. Closure actions were
18 undertaken, and U.S. Department of Energy submitted to Ecology a certification of closure for the 300
19 APT on July 9, 1998. Ecology accepted the certification of closure of the 300 APT on August 10, 1998,
20 and it was moved into post-closure status.

21 This chapter sets forth the post closure requirements for the 300 APT. Groundwater monitoring to meet
22 the corrective action requirements at the 300 Area Process Trenches is addressed in the “*Groundwater*
23 *Monitoring Plan for the 300 Area Process Trenches*” (WHC-SD-EN-AP-185), which has been in effect
24 since 1997. This plan has a network of the following eight (8) wells: 399-1-10A, 399-1-10B, 399-1-16A,
25 399-1-16B, 399-1-17A, 399-1-17B, 399-1-18A, and 399-1-18B. The corrective action for groundwater
26 contaminants are addressed under the Interim Record of Decision (ROD) for the 300-FF-1 and 300-FF-5
27 Operable Unit (July, 7, 1996) until the final ROD is completed. Ecology concurrence with the final
28 remedy decision determines that corrective action requirement will be met with the final remedy.

29 **POST-CLOSURE UNIT 1**

- 30 Addendum A Part A Form, Dangerous Waste Permit Application. dated October 1, 2008
- 31 Addendum B Sampling an Analysis Plan - Reserved
- 32 Addendum C Process Information - Reserved
- 33 Addendum D Groundwater Monitoring Plan, dated May 23, 1995
- 34 Addendum E Security Requirements – Reserved
- 35 Addendum F Preparedness and Prevention - Reserved
- 36 Addendum G Personnel Training - Reserved
- 37 Addendum H Closure Plan - Reserved
- 38 Addendum I Inspection Schedule - Reserved
- 39 Addendum J Contingency Plan – Reserved
- 40 Addendum K Post-Closure Plan, dated June 27, 2011

- 1 **VI.1.A VI.1.A COMPLIANCE WITH PERMIT CONDITIONS**
- 2 **VI.1.A.1** 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 **VI.1.B CORRECTIVE ACTION REQUIREMENTS**
- 6 **VI.1.B.1** Within 180 days of issuance of the final Record of Decision for the 300-FF-1 and 300-
7 FF-5 in accordance with the schedule specified in HFFACO Milestone M-015-72-T01,
8 the Permittees will submit an updated post-closure plan for Ecology approval.
- 9 **VI.1.C GROUNDWATER MONITORING REQUIREMENTS FOR REGULATED UNITS**
- 10 **VI.1.C.1** Groundwater monitoring at the 300 Area Process Trenches will follow the “*Groundwater*
11 *Monitoring Plan for the 300 Area Process Trenches*” (WHC-SD-EN-AP-185)
12 (incorporated by reference) to meet the WAC 173-303-645(11)(g) requirements.
- 13 **VI.1.C.1.1** References to company-specific procedures and documents in the groundwater
14 monitoring plan are not applicable because of site contractor changes that have occurred
15 over the years. The quality assurance (QA) program will provide the requirements for
16 collecting and assessing environmental data in accordance with EPA/240/B-01/003, *EPA*
17 *Requirements for Quality Assurance Project Plans*, EPA QA/R-5.
- 18 **VI.1.C.2** The Permittees will submit an updated groundwater monitoring plan for Ecology
19 approval 180 days after issuance of the final Record of Decision for the 300-FF-1 and
20 300-FF-5 Operable Unit in accordance with the schedule specified in HFFACO
21 Milestone M-015-72-T01 and permit condition I.A.4.a. In accordance with Permit
22 Condition II.F.2, the Permittees may propose the use of alternative requirements for
23 groundwater monitoring. Ecology may determine that the completion of closure of the
24 300 Area Process Trenches Unit can be performed as an element of the CERCLA
25 Remedial Action for the 300-FF-1 and 300-FF-5 Operable Unit as documented in the
26 final CERCLA Record of Decision for that Operable Unit.
- 27 **VI.1.C.2.1** The Permittees will collect samples from the following wells: 399-1-10A, 399-1-10B,
28 399-1-16A, 399-1-16B, 399-1-17A, 399-1-17B, 399-1-18A, and 399-1-18B.
- 29 **VI.1.C.2.2** The Permittees will collect samples from each well in Condition VI.1.C.2.1 at a
30 frequency of two samples per year. The wells will be sampled at the anticipated high
31 (e.g. May-July) and low (e.g. September-November) stage of the Columbia River
32 annually.
- 33 **VI.1.C.2.3** The Permittees will analyze all groundwater samples from wells collected under
34 Condition VI.1.C.2.1 for the following constituents: cis-1,2-dichloroethene,
35 tetrachloroethene, and trichloroethene.
- 36 **VI.1.C.2.4** Water-level measurements will be taken each time the samples in Condition VI.1.C.2.2
37 are collected. These measurements will be converted to elevations, and groundwater
38 flow direction will be determined and reported.
- 39 **VI.1.C.3** The reporting requirement of WAC 173-303-645(11)(g) will be met by a single report
40 that is included in the annual Hanford Site groundwater monitoring report, rather than
41 two semiannual reports.
- 42 **VI.1.D CERTIFICATION OF POSTCLOSURE**
- 43 **VI.1.D.1** No later than 60 days after completion of the postclosure care period, USDOE-RL will
44 submit to Ecology a certification of completion of postclosure care. USDOE-RL and an
45 independent registered professional engineer will sign this certification, stating that

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postclosure care for the unit was performed in accordance with the approved closure plan. The certification will be submitted by registered mail or an equivalent delivery service. Documentation supporting the independent registered professional engineer's certification will be supplied upon request of the regulatory authority.

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