

242-A EVAPORATOR
PART III, OPERATING UNIT GROUP 4
UNIT-SPECIFIC PERMIT CONDITIONS
CHANGE CONTROL LOG

Change Control Logs ensure that changes to this unit are performed in a methodical, controlled, coordinated, and transparent manner. Each unit addendum will have its own change control log with a modification history table. The “**Modification Number**” represents Ecology’s method for tracking the different versions of the permit. This log will serve as an up to date record of modifications and version history of the unit.

Modification History Table

Modification Date	Modification Number
08/26/2021	PCN-242-A-2021-02 (8C.2021.Q3)
06/28/2021	8C.2021.5F
05/10/2021	8C.2021.4F
06/24/2020	8C.2020.5F
11/12/2019	8C.2019.4F
04/30/2019	PCN-242-A-2019-01 (8C.2019.Q2)
04/09/2018	PCN-242-A-2017-02 (8C.2018.Q2)
11/16/2017	8C.2017.5F
07/19/2017	8C.2017.Q2
04/26/2017	8C.2017.Q1
02/18/2016	8C.2015.Q4

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PART III, OPERATING UNIT GROUP 4
UNIT-SPECIFIC PERMIT CONDITIONS**

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2 **PART III, OPERATING UNIT GROUP 4, UNIT-SPECIFIC PERMIT CONDITIONS**
3 **242-A EVAPORATOR**
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6 **UNIT DESCRIPTION**

7 The 242-A Evaporator is a mixed waste treatment and storage unit consisting of a conventional
8 forced-circulation, vacuum evaporation system to concentrate mixed-waste solutions located in the
9 200 East Area.

10 This document sets forth the operating conditions for the 242-A Evaporator.

11 **III.4.A COMPLIANCE WITH UNIT SPECIFIC PERMIT CONDITIONS**

12 The Permittees shall comply with all requirements set forth in the Hanford Facility Resource
13 Conservation and Recovery Act (RCRA) Permit (Permit) as specified in Permit Attachment 9, *Permit*
14 *Applicability Matrix*, including all approved modifications. All chapters, subsections, figures, tables, and
15 appendices included in the following Unit-Specific Permit Conditions are enforceable in their entirety.

16 In the event that the Part III Unit-Specific Conditions for Operating Unit 4, 242-A Evaporator conflict
17 with the Part I Standard Conditions and/or Part II General Facility Conditions of the Permit, the
18 Unit-Specific Permit Conditions for Operating Unit 4, 242-A Evaporator prevail.

19 **CHAPTERS SPECIFIC TO OPERATING UNIT GROUP 4**

- 20 Chapter 1.0 Part A Form
21 Chapter 3.0 Waste Analysis Plan
22 Chapter 4.0 Process Information
23 Chapter 5.0 Groundwater Monitoring, (not applicable)
24 Chapter 6.0 Procedures to Prevent Hazards
25 Chapter 7.0 Contingency Plan
26 Chapter 8.0 Personnel Training
27 Chapter 11.0 Closure

28 **III.4.B COMPLIANCE WITH UNIT-SPECIFIC PERMIT CONDITIONS**

29 **III.4.B.1** Portions of Permit Attachment 4 (DOE/RL-94-02) that are not made enforceable by
30 inclusion in the applicability matrix for that document are not made enforceable by
31 reference in this document.

32 **III.4.C TANK SYSTEMS**

33 **III.4.C.1** The Permittees must upgrade the existing leak detection system for the
34 PC-5000 and 3"-WTP-002-M17 lines to meet the requirements of Washington
35 Administrative Code (WAC) 173-303-640(4)(c)(iii).

36 **III.4.C.1.a** The upgrades must include the installation of additional leak detectors along the PC-5000
37 and 3"-WTP-002-M17 lines, and in the caisson MH-WTP-01.

38 **III.4.C.1.b** The Permittees must submit a permit modification for upgrades to the leak detection
39 system for the PC-5000 and 3"-WTP-002-M17 lines. The permit modification must
40 include the final design of the upgrades.

- 1 **III.4.C.1.c** The Permittees must submit a schedule to the Department of Ecology (Ecology) for
2 completing the permit modification and the upgrades within 30 days of the effective date
3 of this permit condition.
- 4 **III.4.C.1.d** The upgraded leak detection system must be operational prior to waste transfers from
5 242-A Evaporator or the Waste Treatment and Immobilization Plant (WTP) to the Liquid
6 Effluent Retention Facility (LERF).
- 7 **III.4.C.2** Tightness test for the combined waste transfer system piping (PC-5000/3"-WTP-002-
8 M17) will be performed at a frequency of every 10 years upon completion of Permit
9 Condition III.4.C.2.
- 10 **III.4.C.3** Modifications to the leak detection system will be made in accordance with Permit
11 Condition I.C.3.
- 12 **III.4.C.4** The electronic leak detection system for the combined PC-5000 and 3"-WTP-002-M17
13 transfer lines shall be maintained and operated continuously when in use with the
14 following exceptions:
- 15 **III.4.C.4.a** If the electronic leak detection system LDS-41-5 or LDE-43-2 is not operational for
16 transfers to the LERF, visual inspection shall be employed at the corresponding LERF
17 Catch Basin 242AL-41 or 242AL-43 sight glass once per shift, during transfers. For
18 LERF Basin 41, the sight glass is FG-60M-002; for LERF Basin 43, the sight glass is
19 FG-60M-001.
- 20 **III.4.C.4.b** Ecology must be notified if either electronic leak detection system for transfers to LERF
21 Basin 41 or Basin 43 are not operational for more than 90 days. This notification must
22 include a schedule for repairing and returning the system to service within 90 days from
23 notification, or longer if approved by the Department.
- 24 **III.4.C.5** Prior to receipt of dangerous wastes in the PC-5000 to LERF Basin 41 waste transfer
25 system, the Permittees shall submit to Ecology the installation assessment report certified
26 by an independent installation inspector or Independent Qualified Registered Professional
27 Engineer (IQRPE), and the procedure for tightness testing and test results.
- 28 **III.4.C.6** Prior to receipt of Double-Shell Tank System dangerous waste through transfer lines
29 SN-275, SL-170, and SL-171, the Permittees will submit to the Department the
30 following:
- 31 **III.4.C.6.a** Tightness test for the waste lines SN-275, SL-170, and SL-171 that pass through the
32 242-A Evaporator wall to include the three welds connected to these transfer lines
33 immediately outside the 242-A Evaporator building wall, and the three associated wall
34 nozzles inside the 242-A Evaporator.
- 35 **III.4.C.6.b** Installation assessment certified by an independent, qualified installation inspector, or
36 IQRPE for SN-275, SL-170, and SL-171 wall penetrations.
- 37 **III.4.C.6.c** Installation assessment certified by an independent, qualified installation inspector, or
38 IQRPE for the wall nozzles and jumpers.
- 39 **III.4.C.7** The Permittees will perform a pneumatic pressure test on the encasements for the wall
40 penetrations for waste lines SN-275, SL-170, and SL-171 that pass through the
41 242-A Evaporator wall, at a frequency of every 10 years upon completion of
42 Permit Condition III.4.C.6.a.