

**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
10/11/2023	PCN-242-A-2023-03 (8C.2023.Q4)
09/13/2023	PCN-242-A-2023-02 (8C.2023.Q3)
07/14/2022	8C.2022.2F
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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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** RESERVED

34 **III.4.C.1.a** RESERVED

35 **III.4.C.1.b** RESERVED

36 **III.4.C.1.c** RESERVED

37 **III.4.C.1.d** The upgraded leak detection system must be operational prior to waste transfers from
38 242-A Evaporator or the Waste Treatment and Immobilization Plant (WTP) to the Liquid
39 Effluent Retention Facility (LERF).

- 1 **III.4.C.2** Tightness test for the combined waste transfer system piping (PC-5000/3"-WTP-002-
2 M17) will be performed at a frequency of every 10 years.
- 3 **III.4.C.3** Modifications to the leak detection system will be made in accordance with Permit
4 Condition I.C.3.
- 5 **III.4.C.3.a** The Permittee shall submit to the Department of Ecology (Ecology) a report listing what
6 are determined to be false leak detector alarms for LDA-049, LDA-044, LDA-031,
7 LDA-001, LDA-006, and LDA-015, and the instrument number of the leak detector that
8 alarmed (LDE-049, LDE-044, LDE-031, LDE-001, LDE-006 and or LDE-015). The
9 report shall be submitted no later than 15 months after Ecology accepts the installation of
10 the new leak detectors. The report shall include the permittee conclusion if false alarms
11 occurred due to condensate. The report shall be submitted annually until the Department
12 of Energy (DOE) can demonstrate that false alarms due to condensate are not impacting
13 the use and reliability of the system. Ecology must agree to a permit modification to
14 delete this requirement.
- 15 **III.4.C.4** The end-of-line electronic leak detection system for the combined PC-5000 and 3"-WTP-
16 002-M17 transfer lines shall be maintained and operated continuously when in use with
17 the following exceptions:
- 18 **III.4.C.4.a** If either electronic leak detection system LDS-41-5 or LDE-43-2 is not operational for
19 transfers to the LERF, visual inspection shall be employed at the corresponding LERF
20 Catch Basin 242AL-41 or 242AL-43 sight glass once per shift, during transfers. For
21 LERF Basin 41, the sight glass is FG-60M-002; for LERF Basin 43, the sight glass is
22 FG-60M-001.
- 23 **III.4.C.4.b** Ecology must be notified if either electronic leak detection system for transfers to LERF
24 Basin 41 or Basin 43 are not operational for more than 90 days. This notification must
25 include a schedule for repairing and returning the system to service within 90 days from
26 notification, or longer if approved by the Department.
- 27 **III.4.C.5** The Permittee shall submit to Ecology a report listing the time and date of in-line leak
28 detector alarms, and the instrument number of the leak detector that alarmed. The report
29 shall be submitted quarterly for one year after installation of the new leak detectors, and
30 then annually thereafter until issues with false alarms are determined to not be a problem
31 and Ecology agrees to a permit modification to delete the requirement.
- 32 **III.4.C.6** Prior to receipt of dangerous wastes in the PC-5000 to LERF Basin 41 waste transfer
33 system, the Permittees shall submit to Ecology the installation assessment report certified
34 by an independent installation inspector or Independent Qualified Registered Professional
35 Engineer (IQRPE), and the procedure for tightness testing and test results.
- 36 **III.4.C.7** RESERVED
- 37 **III.4.C.7.a** RESERVED
- 38 **III.4.C.7.b** RESERVED
- 39 **III.4.C.7.c** RESERVED
- 40 **III.4.C.8** The Permittees will perform a pneumatic pressure test on the encasements for the wall
41 penetrations for waste lines SN-275, SL-170, and SL-171 that pass through the
42 242-A Evaporator wall, at a frequency of every 10 years.