

**325 HAZARDOUS WASTE TREATMENT UNITS
PART III, OPERATING UNIT GROUP 5
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
09/15/2021	PCN-325-2021-01 (8C.2021.Q3)
06/24/2020	8C.2020.5F
05/05/2020	PCN-325-2020-01 (8C.2020.Q2)
12/17/2019	PCN-325-2019-02 (8C.2019.Q4)
12/12/2018	PCN-325-2018-03 (8C.2018.Q4)
11/19/2018	PCN-325-2018-02 (8C.2018.Q4)
06/29/2018	8C.2018.1A (8C.2018.Q2)
06/11/2018	PCN-325-2018-01 (8C.2018.Q2)
02/20/2018	PCN-325-2017-01
04/26/2017	8C.2017.Q1
05/23/2016	8C.2016.Q1

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PART III, OPERATING UNIT GROUP 5
UNIT-SPECIFIC PERMIT CONDITIONS**

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2 **PART III, OPERATING UNIT GROUP 5, UNIT-SPECIFIC PERMIT CONDITIONS**
3 **325 HAZARDOUS WASTE TREATMENT UNITS**
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6 **UNIT DESCRIPTION**

7 The 325 Hazardous Waste Treatment Units (HWTUs) store and treat dangerous and/or mixed waste in
8 containers and in a 1,218-liter tank. The 325 HWTUs consist of the Shielded Analytical Laboratory
9 (SAL) that includes Rooms 32, 200, 201, 202, and 203; the Cask Handling Area that includes portions of
10 Rooms 603 and 604A; the Truck Lock, Room 610; and the HWTU that includes Rooms 520, 524, and
11 528 of the 325 Building located in the south portion of the 300 Area. It also includes the nearby
12 3714 Pad Area.

13 **LIST OF ADDENDA SPECIFIC TO OPERATING UNIT GROUP 5**

14 Addendum A Part A Form
15 Addendum B Waste Analysis Plan
16 Addendum C Process Information
17 Addendum D Groundwater Monitoring, (Reserved)
18 Addendum E Procedures to Prevent Hazards
19 Addendum F Preparedness and Prevention
20 Addendum G Personnel Training
21 Addendum H Closure Plan
22 Addendum I Inspection Requirements
23 Addendum J Contingency Plan

24 **DEFINITIONS**

25 Reserved

26 **ACRONYMS**

27 Reserved

28 **III.5.A COMPLIANCE WITH UNIT-SPECIFIC PERMIT CONDITIONS**

29 **III.5.A.1** The Permittees will comply with all conditions in this Chapter and its addenda with
30 respect to dangerous and/or mixed waste management and dangerous waste management
31 units in 325 HWTUs, in addition to requirements in Permit Parts I and II.

32 **III.5.B GENERAL WASTE MANAGEMENT**

33 **III.5.B.1** The Permittees are authorized to accept dangerous and/or mixed waste that satisfies the
34 waste acceptance criteria in Addendum B according to the waste acceptance procedures
35 in Addendum B for storage in the 325 HWTUs.

36 **III.5.B.2** The Permittees are authorized to store and/or treat dangerous and/or mixed waste
37 physically located in the 325 HWTUs as of the effective date of this Permit, and wastes
38 accepted for storage or treatment pursuant to Permit Condition III.5.B.1.

- 1 **III.5.B.3** The Permittees will maintain the physical structure of the 325 HWTUs as
2 documented in Addendum C, Section C.1.4.1. [Washington Administrative Code
3 (WAC) 173-303-630(7)]
- 4 **III.5.B.4** The Permittees will conduct waste loading and unloading operations consistent with and
5 no less stringent than those practices described in Addendum F, Section F.2.1.
6 [WAC 173-303-395]
- 7 **III.5.C WASTE ANALYSIS**
- 8 **III.5.C.1** The Permittees will comply with requirements in Addendum B for waste analysis for all
9 dangerous and/or mixed waste managed at this unit. [WAC 173-303-300(5)]
- 10 **III.5.C.2** The Permittees will have an accurate and complete waste profile as described in
11 Addendum B, Section B.1.1.1.3 for every waste stream accepted by the 325 HWTUs.
12 [WAC 173-303-380(1)(a)(b)]
- 13 **III.5.C.3** The Permittees will place a copy of each waste profile required by Permit
14 Condition III.5.C.2 in the Hanford Facility Operating Record, 325 HWTUs file required
15 by Permit Condition II.I.1. [WAC 173-303-380(1)(a)(b)]
- 16 **III.5.C.4** The Permittees will comply with the requirements in Addendum C, Sections C.1.11, and
17 C.2.1.5, to prevent hazards from ignitable, reactive, or incompatible wastes.
18 [WAC 173-303-395(1)]
- 19 **III.5.C.5** The Permittees will make a copy of the waste profile required by Permit
20 Conditions III.5.C.2 available upon request. [WAC 173-303-380(1)(a) and (b)]
- 21 **III.5.D RECORDKEEPING AND REPORTING**
- 22 **III.5.D.1** The Permittees will place the following into the Hanford Facility Operating Record,
23 325 HWTUs file required by Permit Conditions II.I.1: [WAC 173-303-380]
- 24 **III.5.D.1.a** A description of and quantity of each dangerous and/or mixed waste accepted for storage
25 in the 325 HWTUs; [WAC 173-303-380(1)(a)]
- 26 **III.5.D.1.b** Records and results of any sampling or analysis of wastes accepted for storage at the
27 325 HWTUs, and from any other sampling and analysis required by Addendum B;
28 [WAC 173-303-380(1)(c)]
- 29 **III.5.D.1.c** Summary reports and details of all incidents that require implementation of Addendum J,
30 “Contingency Plan,” according to the requirements of Permit Conditions III.5.G.1;
31 [WAC 173-303-380(1)(d)]
- 32 **III.5.D.1.d** An inspection log, or a summary of such log, of inspections conducted pursuant to Permit
33 Conditions III.5.H.1; [WAC 173-303-380(1)(e)]
- 34 **III.5.D.1.e** Records required by WAC 173-303-380(1)(k) and (o), incorporated by reference.
- 35 **III.5.E SECURITY**
- 36 **III.5.E.1** The Permittees will maintain security at the 325 HWTUs according to the requirements
37 in Addendum E, and in accordance with Permit Conditions II.M.
38 [WAC 173-303-310(2)(b)]
- 39 **III.5.E.2** The Permittees will post warning signs at all entrances to the 325 HWTUs.
40 [WAC 173-303-310(2)(a)]

- 1 **III.5.F PREPAREDNESS AND PREVENTION**
- 2 **III.5.F.1** The Permittees will comply with the Preparedness and Prevention requirements in
3 Addendum F. [WAC 173-303-340]
- 4 **III.5.G CONTINGENCY PLAN**
- 5 **III.5.G.1** The Permittee will comply with Addendum J, in addition to the requirements of Permit
6 Conditions II.A when applicable. Enforceable portions of Addendum J are identified in
7 Attachment 10 – RCRA Permit Applicability Matrix within Addendum J.
8 [WAC 173-303-350]
- 9 **III.5.H INSPECTIONS**
- 10 **III.5.H.1** The Permittee will perform inspections of the 325 HWTUs according to Addendum I,
11 “Inspection Requirements.” The inspection shall include:
- 12 **III.5.H.1.a** All monitoring equipment, safety and emergency equipment, security devices and
13 operating and structural equipment that help prevent, detect, or respond to hazards to the
14 public health or the environment. [WAC 173-303-320(2)]
- 15 **III.5.H.2** The inspection schedule required by Permit Conditions III.5.H.1 will provide the
16 frequency of inspection for specific items. The frequency should be based on the rate of
17 possible deterioration of equipment and the probability of an environmental or human
18 health incident. Areas subject to spills must be inspected daily when in use.
19 [WAC 173-303-320(2)(c)]
- 20 **III.5.H.3** The Permittee must remedy any problems revealed by inspections conducted pursuant to
21 Permit Conditions III.5.H.1, on a schedule that prevents hazards to the public health and
22 the environment. Where a hazard is imminent or has already occurred, remedial action
23 must be taken immediately. [WAC 173-303-320(3)]
- 24 **III.5.H.4** The Permittees will place a copy of the inspection requirements and schedule prepared
25 according to Permit Conditions III.5.H.1 in the Hanford Facility Operating Record,
26 325 HWTUs file required by Permit Conditions II.I.1. [WAC 173-303-320(2)(a)]
- 27 **III.5.H.5** The Permittee will keep an inspection log or summary of inspections conducted pursuant
28 to Permit Conditions III.5.H.1, including at a minimum the following:
- 29 **III.5.H.5.a** Date and time of the inspection;
- 30 **III.5.H.5.b** Printed name and the handwritten signature of the inspector;
- 31 **III.5.H.5.c** Notation of the observations made;
- 32 **III.5.H.5.d** An account of spills or discharges in accordance with Permit Conditions I.E.15.d, and the
33 date and description of any repairs or remedial actions taken.
- 34 **III.5.I TRAINING PLAN**
- 35 **III.5.I.1** The Permittee will include Addendum G training requirements in the written training plan
36 required by Permit Conditions II.C. [WAC 173-303-330]
- 37 **III.5.J OTHER GENERAL REQUIREMENTS**
- 38 **III.5.J.1** The Permittees will conduct waste management activities within 325 HWTUs authorized
39 by this Permit according to the requirements in Addendum F, Sections F.3.1, and F.3.2.
40 The Permittees will document compliance with these provisions in the Hanford Facility
41 Operating Record, 325 HWTUs file. [WAC 173-303-395(1)(a)-(c)]

- 1 **III.5.J.2** The Permittees will comply with the requirements of WAC 173-303-395(2), incorporated
2 by reference.
- 3 **III.5.K CLOSURE**
- 4 **III.5.K.1** The Permittees will close the 325 HWTUs in accordance with Addendum H, “Closure
5 Plan.” [WAC 173-303-610(4)]
- 6 **III.5.K.2** The Permittees will amend the Closure Plan in accordance with Permit Conditions II.J.3
7 and Addendum H. [WAC 173-303-610(3)(b)]
- 8 **III.5.K.3** The Permittees will provide Ecology with a Notice of Closure in accordance with
9 Addendum H. [WAC 173-303-610(3)(c)]
- 10 **III.5.L POST CLOSURE**
- 11 Reserved
- 12 **III.5.M CRITICAL SYSTEMS**
- 13 Reserved
- 14 **III.5.N RESERVED**
- 15 **III.5.O CONTAINERS**
- 16 **III.5.O.1** Container Storage Unit Standards
- 17 **III.5.O.1.a** The Permittees will maintain the integrity of container storage secondary containment as
18 documented in Addendum C, Sections C.1.4, and C.1.5, including all chemically resistant
19 coatings and sealants described in Addendum C, Section C.1.4.1, as necessary to ensure
20 any spills or releases do not migrate to the underlying concrete or soils.
- 21 **III.5.O.1.b** The Permittees will place documentation of any damage to and subsequent repairs of
22 chemically resistant coatings in the Hanford Facility Operating Record, 325 HWTUs file
23 required by Permit Conditions II.I.1. [WAC 173-303-630(7)]
- 24 **III.5.O.1.c** Within thirty (30) days of the effective date of this Permit, the Permittee will place
25 documentation in the Hanford Facility Operating Record, 325 HWTUs file identifying
26 the specific chemical resistant floor and wall coatings used for secondary containment in
27 the 325 HWTUs. This documentation will demonstrate that these materials are
28 impervious to the wastes managed in each of the 325 HWTUs cells to contain spills until
29 the collected material is detected and removed. [WAC 173-303-630(7)(a)(i)]
- 30 **III.5.O.2** Container Management Standards
- 31 **III.5.O.2.a** The Permittees are authorized to manage containerized wastes at the 325 HWTUs
32 according to the requirements of Addendum C, Section C.1.2. [WAC 173-303-630(2)]
- 33 **III.5.O.2.b** The Permittees will store containers according to the waste segregation and storage
34 arrangements specified in Addendum C, and the hazard class assigned as part of the
35 waste acceptance process required by Addendum B. [WAC 173-303-630(7),
36 WAC 173-303-395(2)]
- 37 **III.5.O.2.c** In addition to storage capacity limitations specified elsewhere in this Chapter, the
38 Permittees will ensure that the storage limits for flammable liquids, combustible liquids,
39 combustible fibers, flammable gasses and liquefied flammable gasses identified in
40 WAC 173-303-630(8)(b) are not exceeded at any time. In addition, the Permittees will
41 ensure the capacity limitation for explosive waste in WAC 173-303-630(8)(a) is not
42 exceeded at any time. [WAC 173-303-630(8)]

- 1 **III.5.O.2.d** The Permittees will label containers according to the requirements of Addendum C,
2 Section C.1.3. The Permittees will also ensure that:
- 3 **III.5.O.2.d.i** Container labels are not obscured or are otherwise unreadable;
- 4 **III.5.O.2.d.ii** Container labels are not obscured, removed, or otherwise unreadable in the course of
5 inspection;
- 6 **III.5.O.2.d.iii** Container labels are removed or completely obscured when the container to which they
7 are attached is rendered empty. [WAC 173-303-630(3)]
- 8 **III.5.O.2.e** The Permittees will ensure wastes are compatible with containers in which they are
9 managed and with other wastes stored at the 325 HWTUs according to the requirements
10 Addendum C, Section C.1.11, and Addendum F, Section F.3.2. [WAC 173-303-630(4),
11 WAC 173-303-630(9)]
- 12 **III.5.O.2.f** The Permittees will comply with the requirements for managing wastes in containers in
13 WAC 173-303-630(5)(a) and (b), incorporated by reference.
- 14 **III.5.O.2.g** The Permittees will ensure the physical arrangement and spacing of containers within the
15 325 HWTUs satisfies the following requirements. [WAC 173-303-630(5)(c)]
- 16 **III.5.O.2.g.i** The Permittees will comply with the requirements for waste stored in cells, storage
17 cabinets and shelves, as documented in Addendum C, Section C.1.2;
- 18 **III.5.O.2.g.ii** The Permittees will ensure the physical arrangement and spacing of drums that are stored
19 in the 325 HWTUs are stored in rows no more than two drums wide and with a
20 separation of at least thirty (30) inches between rows of drums to ensure that all drums
21 are readily accessible for movement and inspection. [WAC 173-303-630(5)(c),
22 WAC 173-303-340(3)]
- 23 **III.5.O.2.h** The Permittees will remove any accumulated liquids from container storage areas in the
24 325 HWTUs, including individual secondary containment systems (spill pallets, portable
25 booms, or other commercially available drum containment systems) that may be used to
26 ensure containers are not in contact with free liquids and to prevent overflow of the
27 container storage area secondary containment. [WAC 173-303-630(7)]
- 28 **III.5.O.2.i** The Permittees may treat wastes in containers via consolidation of wastes, decanting of
29 free liquids and addition of absorbents. Absorbents must satisfy the requirements of
30 WAC 173-303-140(4)(b)(iv), incorporated by reference, for wastes to be land disposed in
31 Washington. The Permittees may not use addition of absorbents for purposes of changing
32 the treatability group of a waste with respect to the land disposal restriction standards of
33 40 Code of Federal Regulations 268, incorporated by reference by WAC 173-303-140.
- 34 **III.5.O.2.j** Waste stored in the SAL and the Cask Handling Area is exempt from WAC 173-303-692,
35 as those units are used exclusively to manage mixed waste. The Permittees will comply
36 with the requirements for air emissions from containers in Addendum C, Section C.3 for
37 waste stored in the other portions of the 325 HWTUs. [WAC 173-303-692]
- 38 **III.5.O.3** Container Storage Inspection Requirements
- 39 **III.5.O.3.a** The Permittee will inspect the 325 HWTUs according to Addendum I, “Inspection
40 Requirements.” [WAC 173-303-630(6)]
- 41 **III.5.O.3.b** The Permittees will comply with the requirements of WAC 173-303-395(1)(d),
42 incorporated by reference. [WAC 173-303-395(1)(d)]

- 1 **III.5.P TANK SYSTEMS**
- 2 **III.5.P.1** The Permittees will develop, maintain, and follow a written schedule and requirements
3 for conducting integrity assessments. The schedule will meet the requirements of
4 Addendum C, Section C.2.1.1.2 and consideration of the following factors:
- 5 **III.5.P.1.a** Results of past integrity assessments;
- 6 **III.5.P.1.b** Age of the tank system(s);
- 7 **III.5.P.1.c** Materials of construction of each tank system, including any liners;
- 8 **III.5.P.1.d** Characteristics of the wastes managed by each tank system;
- 9 **III.5.P.1.e** Any other relevant factors. [WAC 173-303-640(2)(e)]
- 10 **III.5.P.2** The Permittees will maintain a copy of the schedule required by Permit
11 Condition III.5.P.1 in the Hanford Facility Operating Record, 325 HWTUs file, and
12 conduct periodic integrity assessments according to the schedules and requirements of the
13 schedule. If results of these assessments indicate a tank has structural deficiencies or
14 lacks integrity such that it may collapse, rupture or fail, the Permittees must follow the
15 requirements of WAC 173-303-640(7), incorporated by reference.
16 [WAC 173-303-640(2)(e)]
- 17 **III.5.P.3** If the findings of an integrity assessment conducted pursuant to Permit Condition III.5.P.1
18 indicate a tank has structural deficiencies or lacks integrity such that it may collapse,
19 rupture or fail, the Permittees will evaluate the waste acceptance criteria in Addendum B,
20 the applicable tank design and/or operating requirements in Addendum C, and any other
21 Permit requirements which may reasonably influence the integrity of the tank in question.
22 Based on this review, the Permittees will request the required Permit modifications in
23 accordance with Permit Conditions I.C.3 to minimize any adverse effects of future waste
24 management activities on the integrity of the tank. [WAC 173-303-640(2)(d),
25 WAC 173-303-815(2)(b)]
- 26 **III.5.P.4** Tank System Operating Requirements
- 27 **III.5.P.4.a** The Permittees will comply with the requirements of WAC 173-303-640(5)(a),
28 incorporated by reference.
- 29 **III.5.P.4.b** The Permittees will comply with the requirements of Addendum C, Section C.2.1.2.4.
30 [WAC 173-303-640(5)(b)]
- 31 **III.5.P.4.c** The Permittees will comply with the requirements of Addendum C, Section C.2.1.4.
32 [WAC 173-303-640(5)(d)]
- 33 **III.5.P.4.d** The Permittees will comply with the requirements of WAC 173-303-640(7), incorporated
34 by reference, in response to spills or leaks from tank systems at Operating Unit Group 5.
35 [WAC 173-303-640(5)(c)]
- 36 **III.5.P.4.e** The Permittees will comply with the requirements of WAC 173-303-640(10),
37 incorporated by reference.
- 38 **III.5.P.5** Tank System Inspection Requirement
- 39 **III.5.P.5.a** The Permittees will inspect the Operating Unit Group 5 tank systems authorized by
40 Permit Condition III.5.B.2 according to Addendum I, "Inspection Requirements."
41 [WAC 173-303-640(6)(a)-(c)]

- 1 **III.5.P.5.b** The Permittees will place documentation of inspections conducted pursuant to Permit
2 Condition III.3.P.5.a in the Hanford Facility Operating Record, 325 HWTUs file required
3 by Permit Condition II.I.1. These records will contain the following information:
4 [WAC 173-303-640(6)(d)]
- 5 **III.5.P.5.b.i** Date and time of the inspection.
- 6 **III.5.P.5.b.ii** Printed name and the handwritten signature of the inspector.
- 7 **III.5.P.5.b.iii** Notation of the observations made.
- 8 **III.5.P.5.b.iv** Date and description of any repairs or remedial actions taken, and/or the scheduled date
9 for the repairs or remedial actions.
- 10 **III.5.P.5.c** The Permittees will remedy any problems revealed by the inspections required by
11 Permit Condition III.3.P.9, on a schedule that prevents hazards to the public health and
12 environment. Where a hazard is imminent or has already occurred, remedial action must
13 be taken immediately. [WAC 173-303-640(6)(d)]
- 14 **III.5.P.6** Approved Waste and Storage Limits
- 15 **III.5.P.6.a** Subject to conditions in Addendum C, the Permittees may store a maximum of
16 1,218 liters of dangerous and/or mixed waste in the tank system in the 325 HWTUs
17 (S02). A maximum of 1,218 liters per day of dangerous and/or mixed waste may be
18 treated in tanks in the 325 HWTUs (T01).
- 19 **III.5.P.6.b** The Permittees shall only store or treat in the SAL tank the following mixed waste listed
20 in the Dangerous and Mixed Waste Tank System:
- 21 **III.5.P.6.b.i** Dangerous and/or mixed waste generated by Pacific Northwest National Laboratory; or
- 22 **III.5.P.6.b.ii** Mixed waste generated at other Hanford Facility locations and mixed waste generated
23 from offsite facilities, which have been transferred and accepted by the 325 HWTUs
24 pursuant to the provisions in Addendum B, "Waste Analysis Plan," and this Permit.
- 25 **III.5.P.7** Tank System Design and Construction
- 26 **III.5.P.7.a** Tank System Installation and Certification will be retained by the Permittees and made
27 available upon request.
- 28 **III.5.P.8** Integrity Assessments
- 29 **III.5.P.8.a** Results of the integrity assessments shall be included in the Hanford Facility Operating
30 Record, 325 HWTUs File until final closure and corrective action are complete and
31 certified.
- 32 **III.5.P.8.b** Any tank system, including its secondary containment system, found to be leaking, or
33 otherwise unfit for service, immediately shall be removed from service and the
34 Permittees shall comply with the requirements of WAC 173-303-640(7). Such a tank
35 system, including its secondary containment system, shall not be returned to service until
36 the Permittees have obtained the required certification.
- 37 **III.5.P.8.c** The Permittees shall maintain the integrity of all containment systems for tank systems.
- 38 **III.5.P.9** Tank Management Practices
- 39 **III.5.P.9.a** The Permittees shall not place mixed wastes or treatment reagents in the tank system if
40 these could cause the tank, its ancillary equipment, or a containment system to rupture,
41 leak, corrode, or otherwise fail.

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