

PART III, OPERATING UNIT GROUP 5 PERMIT CONDITIONS

325 Hazardous Waste Treatment Units

Unit Description:

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

Commented [HT1]: Revised to add the areas being added by this modification. Class 3, F.1.a.

List of Addenda Specific to Operating Unit Group 5

- Addendum A Part A Form, dated ~~September 30, 2008~~ May 2014
- Addendum B Waste Analysis Plan, dated ~~September 30, 2009~~ May 2014
- Addendum C Process Information, dated ~~June 30, 2009~~ May 2014
- Addendum D Groundwater Monitoring (Reserved)
- Addendum E Procedures to Prevent Hazards, dated ~~June 30, 2009~~ May 2014
- Addendum F Preparedness and Prevention, dated ~~June 30, 2009~~ May 2014
- Addendum G Personnel Training, dated ~~March 31, 2009~~ May 2014
- Addendum H Closure Plan, dated ~~June 30, 2009~~ May 2014
- Addendum I Inspection Requirements, dated ~~June 30, 2009~~ May 2014
- Addendum J Contingency Plan, dated June 17, 2011

Commented [HT2]: These Addenda are being modified to incorporate the new units and make other conforming changes. Class 3, F.1.a.

Definitions

Reserved

Acronyms

Reserved

Commented [HT3]: The Contingency Plan is not being changed by this modification package. A separate, Class 1 modification package is presently pending to update this Addendum.

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

III.5.A.1 The Permittees will comply with all conditions in this Chapter and its addenda with respect to dangerous and/or mixed waste management and dangerous waste management units in 325 Hazardous Waste Treatment Units (HWTUs), in addition to requirements in Permit Parts I and II.

III.5.B GENERAL WASTE MANAGEMENT

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

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

III.5.B.3 The Permittees will maintain the physical structure of the 325 HWTUs as documented in Addendum C, Section C.1.4.1. [[WAC 173-303-630\(7\)](#)]

1 III.5.B.4 The Permittees will conduct waste loading and unloading operations consistent with and
2 no less stringent than those practices described in Addendum F, Section F.2.1.
3 [\[WAC 173-303-395\]](#)

4 **III.5.C WASTE ANALYSIS**

5 III.5.C.1 The Permittees will comply with requirements in Addendum B for waste analysis for all
6 dangerous and/or mixed waste managed at this unit. [\[WAC 173-303-300\(5\)\]](#)

7 III.5.C.2 The Permittees will have an accurate and complete waste profile as described in
8 Addendum B, Section B.1.1.1.2.1 for every waste stream accepted by the 325 HWTUs.
9 [\[WAC 173-303-380\(1\)\(a\)\(b\)\]](#)

10 III.5.C.3 The Permittees will place a copy of each waste profile required by Permit
11 Condition II.5.C.2 in the Hanford Facility Operating Record, 325 HWTUs File required
12 by Permit Condition II.I.2. [\[WAC 173-303-380\(1\)\(a\)\(b\)\]](#)

13 III.5.C.4 The Permittees will comply with the requirements in Addendum C, Sections C.1.11, and
14 C.2.1.5, to prevent hazards from ignitable, reactive, or incompatible wastes.
15 [\[WAC 173-303-395\(1\)\]](#)

16 III.5.C.5 The Permittees will make a copy of the waste profile required by Permit
17 Condition III.5.C.2 available upon request. [\[WAC 173-303-380\(1\)\(a\) and \(b\)\]](#)

18 **III.5.D RECORDKEEPING AND REPORTING**

19 III.5.D.1 The Permittees will place the following into the Hanford Facility Operating Record,
20 325 HWTUs File required by Permit Condition II.I.2: [\[WAC 173-303-380\]](#)

21 III.5.D.1.a A description of and quantity of each dangerous and/or mixed waste accepted for storage
22 in the 325 HWTUs; [\[WAC 173-303-380\(1\)\(a\)\]](#)

23 III.5.D.1.b Records and results of any sampling or analysis of wastes accepted for storage at the
24 325 HWTUs, and from any other sampling and analysis required by Addendum B;
25 [\[WAC 173-303-380\(1\)\(c\)\]](#)

26 III.5.D.1.c Summary reports and details of all incidents that require implementation of Addendum J,
27 Contingency Plan according to the requirements of Permit Condition III.5.G.1;
28 [\[WAC 173-303-380\(1\)\(d\)\]](#)

29 III.5.D.1.d An inspection log, or a summary of such log, of inspections conducted pursuant to Permit
30 Condition III.5.H.1; [\[WAC 173-303-380\(1\)\(e\)\]](#)

31 III.5.D.1.e Records required by [WAC 173-303-380\(1\)\(k\) and \(o\)](#), incorporated by reference.

32 **III.5.E SECURITY**

33 III.5.E.1 The Permittees will maintain security at the 325 HWTUs according to the requirements
34 in Addendum E, and in accordance with ~~Permit Attachment 33 and required by Permit~~
35 Condition II.L. [\[WAC 173-303-310\(2\)\(b\)\]](#)

36 III.5.E.2 The Permittees will post warning signs at all entrances to the 325 HWTUs.
37 [\[WAC 173-303-310\(2\)\(a\)\]](#)

38 **III.5.F PREPAREDNESS AND PREVENTION**

39 III.5.F.1 The Permittees will comply with the Preparedness and Prevention requirements in
40 Addendum F. [\[WAC 173-303-340\]](#)

41 **III.5.G CONTINGENCY PLAN**

Commented [HT4]: Removes reference to Attachment 33, which has been removed from the Permit. The relevant information from Attachment 33 has been added to Addendum E as part of this modification. Class 1, A.1.

- 1 III.5.G.1 The Permittee will comply with Addendum J, in addition to the requirements of Permit
2 Condition II.A when applicable. Enforceable portions of Addendum J are identified in
3 Permit Addendum J, Page J-i. [[WAC 173-303-350](#)]
- 4 **III.5.H INSPECTIONS**
- 5 III.5.H.1 The Permittee will perform inspections of the 325 HWTUs according to Addendum I,
6 Inspection Plan. The inspection shall include:
- 7 III.5.H.1.a All monitoring equipment, safety and emergency equipment, security devices and
8 operating and structural equipment that help prevent, detect, or respond to hazards to the
9 public health or the environment. [[WAC 173-303-320](#)(2)]
- 10 III.5.H.2 The inspection schedule required by Permit Condition III.5.H.1 will provide the
11 frequency of inspection for specific items. The frequency should be based on the rate of
12 possible deterioration of equipment and the probability of an environmental or human
13 health incident. Areas subject to spills must be inspected daily when in use.
14 [[WAC 173-303-320](#)(2)(c)]
- 15 III.5.H.3 The Permittee must remedy any problems revealed by inspections conducted pursuant to
16 Permit Condition III.5.H.1, on a schedule that prevents hazards to the public health and
17 the environment. Where a hazard is imminent or has already occurred, remedial action
18 must be taken immediately. [[WAC 173-303-320](#)(3)]
- 19 III.5.H.4 The Permittees will place a copy of the inspection requirements and schedule prepared
20 according to Permit Condition III.5.H.1 in the Hanford Facility Operating Record,
21 325 HWTUs File required by Permit Condition II.I.2. [[WAC 173-303-320](#)(2)(a)]
- 22 III.5.H.5 The Permittee will keep an inspection log or summary of inspections conducted pursuant
23 to Permit Condition III.5.H.1, including at a minimum the following:
- 24 III.5.H.5.a Date and time of the inspection;
- 25 III.5.H.5.b Printed name and the handwritten signature of the inspector;
- 26 III.5.H.5.c Notation of the observations made;
- 27 III.5.H.5.d An account of spills or discharges in accordance with Permit Condition II.E, and the date
28 and description of any repairs or remedial actions taken.
- 29 **III.5.I TRAINING PLAN**
- 30 III.5.I.1 The Permittee will include Addendum G training requirements in the written training
31 plan required by Permit Condition II.C. [[WAC 173-303-330](#)]
- 32 **III.5.J OTHER GENERAL REQUIREMENTS**
- 33 III.5.J.1 The Permittees will conduct waste management activities within 325 HWTUs authorized
34 by this Permit according to the requirements in Addendum F, Sections F.3.1, and F.3.2.
35 The Permittees will document compliance with these provisions in the Hanford Facility
36 Operating Record, 325 HWTUs File. [[WAC 173-303-395](#)(1)(a)-(c)]
- 37 III.5.J.2 The Permittees will comply with the requirements of [WAC 173-303-395](#)(2), incorporated
38 by reference.
- 39 **III.5.K CLOSURE**
- 40 III.5.K.1 The Permittees will close the 325 HWTUs in accordance with Addendum H, Closure
41 Plan. [[WAC 173-303-610](#)(4)]

Commented [HT5]: Typo fix – added closing bracket. Class 1, A.2.

- 1 III.5.K.2 The Permittees will amend the Closure Plan in accordance with Permit Condition II.J.2-3
2 and Addendum H. [\[WAC 173-303-610\(3\)\(b\)\]](#)
- 3 III.5.K.3 The Permittees will provide Ecology with a Notice of Closure ~~according to Permit~~
4 ~~Condition II.J.1 in accordance with Addendum H.~~ [\[WAC 173-303-610\(3\)\(c\)\]](#)
- 5 **III.5.L POST CLOSURE**
6 Reserved
- 7 **III.5.M CRITICAL SYSTEMS**
8 Reserved
- 9 **III.5.N RESERVED**
- 10 **III.5.O CONTAINERS**
- 11 III.5.O.1 Container Storage Unit Standards
- 12 III.5.O.1.a The Permittees will maintain the integrity of container storage secondary containment as
13 documented in Addendum C, Sections C.1.4, and C.1.5, including all chemically resistant
14 coatings and sealants described in Addendum C, Section C.1.4.1 ~~H~~, as necessary to ensure
15 any spills or releases do not migrate to the underlying concrete or soils.
- 16 III.5.O.1.b The Permittees will place documentation of any damage to and subsequent repairs of
17 chemically resistant coatings in the Hanford Facility Operating Record, 325 HWTUs File
18 required by Permit Condition II.I.2. [\[WAC 173-303-630\(7\)\]](#)
- 19 III.5.O.1.c Within thirty (30) days of the effective date of this Permit, the Permittee will place
20 documentation in the Hanford Facility Operating Record, 325 HWTUs File identifying
21 the specific chemical resistant floor and wall coatings used for secondary containment in
22 the 325 HWTUs. This documentation will demonstrate that these materials are
23 impervious to the wastes managed in each of the 325 HWTUs cells to contain spills until
24 the collected material is detected and ~~removed.~~ [\[WAC 173-303-630\(7\)\(a\)\(i\)\]](#)
- 25 III.5.O.2 Container Management Standards
- 26 III.5.O.2.a The Permittees are authorized to manage containerized wastes at the 325 HWTUs
27 according to the requirements of Addendum C, Section C.1.2. [\[WAC 173-303-630\(2\)\]](#)
- 28 III.5.O.2.b The Permittees will store containers according to the waste segregation and storage
29 arrangements specified in Addendum C, and the hazard class assigned as part of the
30 waste acceptance process required by Addendum B. [\[WAC 173-303-630\(7\)](#),
31 [WAC 173-303-395\(2\)\]](#)
- 32 III.5.O.2.c In addition to storage capacity limitations specified elsewhere in this Chapter, the
33 Permittees will ensure that the storage limits for flammable liquids, combustible liquids,
34 combustible fibers, flammable gasses and liquefied flammable gasses identified in
35 [WAC 173-303-630\(8\)\(b\)](#) are not exceeded at any time. In addition, the Permittees will
36 ensure the capacity limitation for explosive waste in [WAC 173-303-630\(8\)\(a\)](#) is not
37 exceeded at any time. [\[WAC 173-303-630\(8\)\]](#)
- 38 III.5.O.2.d The Permittees will label containers according to the requirements of Addendum C,
39 Section C.1.3. The Permittees will also ensure that:
- 40 III.5.O.2.d.i Container labels are not obscured or are otherwise unreadable;
- 41 III.5.O.2.d.ii Container labels are ~~not obscured, removed, or otherwise unreadable in the course of~~
42 ~~inspection oriented so that labels are readily visible.~~

Commented [HT6]: Typo fix; this requirement is in II.J.3. Class 1, A.2.

Commented [HT7]: Condition II.J does not contain any specific requirement to submit a notice of closure as required by the cited WAC. Revised to reference to Addendum H instead where this requirement is met. Class 1, A.1.

Commented [HT8]: Typo fix, this information is in C.1.4.1. Class 1, A.2.

Commented [HT9]: Typo fix, removed extra period. Class 1, A.2.

Commented [HT10]: Revises this requirement to utilize the specific language of WAC 173-303-630(3). The phrase "readily visible" is vague and subjective, especially in 325 HWTUs when small containers are stored in individual secondary containment (e.g. pans) and/or in cabinets. Class 2, A.4.b.

- 1 III.5.O.2.d.iii Container labels are removed or completely obscured when the container to which they
2 are attached is rendered empty. [[WAC 173-303-630](#)(3)]
- 3 III.5.O.2.e The Permittees will ensure wastes are compatible with containers in which they are
4 managed and with other wastes stored at the 325 HWTUs according to the requirements
5 Addendum C, Sections ~~C.1.10~~ and C.1.11, and Addendum F, Section F.23.2.
6 [[WAC 173-303-630](#)(4), [WAC 173-303-630](#)(9)]
- 7 III.5.O.2.f The Permittees will comply with the requirements for managing wastes in containers in
8 [WAC 173-303-630](#)(5)(a) and (b), incorporated by reference.
- 9 III.5.O.2.g The Permittees will ensure the physical arrangement and spacing of containers within the
10 325 HWTUs satisfies the following requirements. [[WAC 173-303-630](#)(5)(c)]
- 11 III.5.O.2.g.i The Permittees will comply with the requirements for waste stored in cells, storage
12 cabinets and shelves, as documented in Addendum C, Section C.1.2;
- 13 III.5.O.2.g.ii The Permittees will ensure the physical arrangement and spacing of drums that are stored
14 in the 325 HWTUs are stored in rows no more than two drums wide and with a
15 separation of at least thirty (30) inches between rows of drums to ensure that all drums
16 are readily accessible for movement and inspection. [[WAC 173-303-630](#)(5)(c),
17 [WAC 173-303-340](#)(3)]
- 18 III.5.O.2.h The Permittees will remove any accumulated liquids from container storage areas in the
19 325 HWTUs, including individual secondary containment systems (spill pallets, portable
20 booms, or other commercially available drum containment systems) that may be used to
21 ensure containers are not in contact with free liquids and to prevent overflow of the
22 container storage area secondary containment. [[WAC 173-303-630](#)(7)]
- 23 III.5.O.2.i The Permittees may treat wastes in containers via consolidation of wastes, decanting of
24 free liquids and addition of absorbents. Absorbents must satisfy the requirements of
25 [WAC 173-303-140](#)(4)(b)(iv), incorporated by reference, for wastes to be land disposed in
26 Washington. The Permittees may not use addition of absorbents for purposes of
27 changing the treatability group of a waste with respect to the land disposal restriction
28 standards of [40 CFR 268](#), incorporated by reference by [WAC 173-303-140](#).
- 29 III.5.O.2.j Waste stored in the SAL and the Cask Handling Area is exempt from [WAC 173-303-692](#),
30 as ~~the SAL is those units are~~ used exclusively to manage mixed waste. The Permittees
31 will comply with the requirements for air emissions from containers in Addendum C,
32 Section C.3 for waste stored in the other portions of the 325 HWTUs.
33 [[WAC 173-303-692](#)]
- 34 III.5.O.3 Container Storage Inspection Requirements
- 35 III.5.O.3.a The Permittee will inspect the 325 HWTUs according to Addendum I, Inspection
36 Requirements. [[WAC 173-303-630](#)(6)]
- 37 III.5.O.3.b The Permittees will comply with the requirements of [WAC 173-303-395](#)(1)(d),
38 incorporated by reference. [[WAC 173-303-395](#)(1)(d)]
- 39 **III.5.P TANK SYSTEMS**
- 40 III.5.P.1 The Permittees will develop, maintain, and follow a written schedule and requirements
41 for conducting integrity assessments. The schedule will meet the requirements of
42 Addendum C, Section C.2.1.1.2 and consideration of the following factors:
- 43 III.5.P.1.a Results of past integrity assessments;
- 44 III.5.P.1.b Age of the tank system(s);

Commented [HT11]: Section C.1.10 deals with storage of ignitable waste and does not deal with incompatible materials, the subject of this permit condition. That information is fully covered in C.1.11 and F.3.2. Class 1, A.1. and A.2. (typo fix in reference to F.3.2.)

Commented [HT12]: Revises this condition to reflect the addition of the new units. Class 3, F.1.a.

- 1 III.5.P.1.c Materials of construction of each tank system, including any liners;
- 2 III.5.P.1.d Characteristics of the wastes managed by each tank system;
- 3 III.5.P.1.e Any other relevant factors. [[WAC 173-303-640\(2\)\(e\)](#)]
- 4 III.5.P.2 The Permittees will maintain a copy of the schedule required by Permit
5 Condition III.5.P.1 in the Hanford Facility Operating Record, 325 HWTUs File, and
6 conduct periodic integrity assessments according to the schedules and requirements of the
7 schedule. If results of these assessments indicate a tank has structural deficiencies or
8 lacks integrity such that it may collapse, rupture or fail, the Permittees must follow the
9 requirements of [WAC 173-303-640\(7\)](#), incorporated by reference.
10 [[WAC 173-303-640\(2\)\(e\)](#)]
- 11 III.5.P.3 If the findings of an integrity assessment conducted pursuant to Permit
12 Condition III.5.P.1 indicate a tank has structural deficiencies or lacks integrity such that it
13 may collapse, rupture or fail, the Permittees will evaluate the waste acceptance criteria in
14 Addendum B, the applicable tank design and/or operating requirements in Addendum C,
15 and any other Permit requirements which may reasonably influence the integrity of the
16 tank in question. Based on this review, the Permittees will request the required Permit
17 modifications in accordance with Permit Condition I.C.3 to minimize any adverse effects
18 of future waste management activities on the integrity of the tank.
19 [[WAC 173-303-640\(2\)\(d\)](#), [WAC 173-303-815\(2\)\(b\)](#)]
- 20 III.5.P.4 Tank System Operating Requirements
- 21 III.5.P.4.a The Permittees will comply with the requirements of [WAC 173-303-640\(5\)\(a\)](#),
22 incorporated by reference.
- 23 III.5.P.4.b The Permittees will comply with the requirements of Addendum C, Section C.2.1.2.4.
24 [[WAC 173-303-640\(5\)\(b\)](#)]
- 25 III.5.P.4.c The Permittees will comply with the requirements of Addendum C, Section C.2.1.4.
26 [[WAC 173-303-640\(5\)\(d\)](#)]
- 27 III.5.P.4.d The Permittees will comply with the requirements of [WAC 173-303-640\(7\)](#), incorporated
28 by reference, in response to spills or leaks from tank systems at Operating Unit Group 5.
29 [[WAC 173-303-640\(5\)\(c\)](#)]
- 30 III.5.P.4.e The Permittees will comply with the requirements of [WAC 173-303-640\(10\)](#),
31 incorporated by reference.
- 32 III.5.P.5 Tank System Inspection Requirement
- 33 III.5.P.5.a The Permittees will inspect the Operating Unit Group 5 tank systems authorized by
34 Permit Condition III.5.B.2 according to Addendum I, Inspection Requirements.
35 [[WAC 173-303-640\(6\)\(a\)-\(c\)](#)]
- 36 III.5.P.5.b The Permittees will place documentation of inspections conducted pursuant to Permit
37 Condition III.3.P.5.a in the Hanford Facility Operating Record, 325 HWTUs File
38 required by Permit Condition II.I.2. These records will contain the following
39 information: [[WAC 173-303-640\(6\)\(d\)](#)]
- 40 III.5.P.5.b.i Date and time of the inspection
- 41 III.5.P.5.b.ii Printed name and the handwritten signature of the inspector
- 42 III.5.P.5.b.iii Notation of the observations made
- 43 III.5.P.5.b.iv Date and description of any repairs or remedial actions taken, and/or the scheduled date
44 for the repairs or remedial actions.

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

Commented [HT13]: This condition is out of place in Condition III.5.P, "Tank Systems", as it deals with containerized waste. It should be deleted; the requirements of this condition are adequately dealt with in Addendum A and C. Class 1, A.8.

Class ~~1-3~~ Modification
~~September 30, 2014~~ May 2014

WA7 89000 8967, Part III, Operating Unit Group 5
325 Hazardous Waste Treatment Units

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