



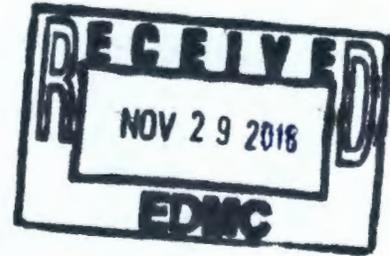
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OFFICE OF RIVER PROTECTION
P.O. Box 450, MSIN H6-60
Richland, Washington 99352

NOV 28 2018

18-ECD-0080

Ms. Alexandra K. Smith, Program Manager
Nuclear Waste Program
Washington State
Department of Ecology
3100 Port of Benton Blvd.
Richland, Washington 99354



Ms. Smith:

**SUBMITTAL OF HANFORD FACILITY RESOURCE CONSERVATION AND RECOVERY
ACT PERMIT MODIFICATION NOTIFICATION FORM 24590-WTP-PCN-ENV-18-011**

Reference: WA7890008967, "Dangerous Waste Portion of the Hanford Facility Resource Conservation and Recovery Act Permit for the Treatment, Storage, and Disposal of Dangerous Waste, Part III, Operating Unit 10, "Waste Treatment and Immobilization Plant."

The purpose of this Class 1 prime permit modification is to update references to Independent Qualified Register Professional Engineer and Registered Professional Engineer. This permit modification aligns the permit to make it consistent with Washington Administrative Code definitions in the permit conditions.

If you have any questions, please contact Chris J. Kemp, Director, Environmental Compliance Division, (509) 373-0649, or Roger J. Landon, Environmental Protection Manager, Bechtel National, Inc., (509) 371-2165.


Glyn D. Trenchard, Assistant Manager
Technical and Regulatory Support

ECD:MEB

Attachment

cc: See page 2

H-0-8

21

Ms. Alexandra K. Smith
18-ECD-0080

-2-

NOV 28 2018

cc w/attach:

S. Greagor, BNI
V. McCain, BNI
D. Yasek, BNI
J. Cantu, Ecology (7 hard copies)
A.S. Carlson, Ecology (CD)
M.E. Jones, Ecology (CD)
J.K. Perry, MSA
A.C. McKarns, RL
D. Rowland, YN
Administrative Record (WTP H-0-8)
BNI Correspondence
Environmental Portal

cc w/o attach:

M. Johnson, CTUIR
S.L. Dahl, Ecology
D. McDonald, Ecology
J. Bell, NPT (Acting)
G.P. Bohnee, NPT
K. Niles, Oregon Energy
R. Longoria, YN (Acting)

Attachment
18-ECD-00080
(18 Pages Excluding Cover Sheet)

Hanford Facility RCRA Permit Modification Notification
Form 24590-WTP-PCN-ENV-18-011

Quarter Ending Dec. 31, 2018

24590-WTP-PCN-ENV-18-011

Hanford Facility RCRA Permit Modification Notification Form
Part III, Operating Unit 10
Waste Treatment and Immobilization Plant

Index

Page 2 of 2: Hanford Facility RCRA Permit, Part III, Operating Unit 10, Waste Treatment and Immobilization Plant
Permit Conditions with redline changes

Submitted by Co-Operator:

Roger J. Landon 10/29/18
Roger J. Landon Date

Reviewed by ORP Program Office:

Thomas W. Fletcher 11/27/18
Thomas W. Fletcher Date

Quarter Ending Dec. 31, 2018

24590-WTP-PCN-ENV-18-011

Hanford Facility RCRA Permit Modification Notification Form																						
Unit: Waste Treatment and Immobilization Plant	Permit Part: Part III, Operating Unit 10																					
Description of Modification:																						
The purpose of this Class ¹ modification is to update references to Independent Qualified Registered Professional Engineer (IQRPE) and Registered Professional Engineer (RPE) for consistency with the WAC definition (below).																						
WAC 173-303-040 definition: <u>Independent qualified registered professional engineer</u> – a person who is licensed by the state of Washington, or a state which has reciprocity with the state of Washington as defined in RCW 18.43.100, and who is not an employee of the owner or operator of the facility for which construction or modification certification is required. A qualified professional engineer is an engineer with expertise in the specific area for which a certification is given.																						
The following Permit Conditions were updated:																						
<table border="1" style="margin: auto; border-collapse: collapse;"> <tbody> <tr><td style="padding: 2px;">III.10.C.2.a</td><td style="padding: 2px;">III.10.G.3.a</td></tr> <tr><td style="padding: 2px;">III.10.D.3.b</td><td style="padding: 2px;">III.10.H.1.a.iii</td></tr> <tr><td style="padding: 2px;">III.10.E.1.d</td><td style="padding: 2px;">III.10.H.1.a.iv</td></tr> <tr><td style="padding: 2px;">III.10.E.3.a</td><td style="padding: 2px;">III.10.I.1.a.iv</td></tr> <tr><td style="padding: 2px;">III.10.F.1.d</td><td style="padding: 2px;">III.10.J.1.a.iii</td></tr> <tr><td style="padding: 2px;">III.10.F.3.d.iii</td><td style="padding: 2px;">III.10.J.1.a.iv</td></tr> <tr><td style="padding: 2px;">III.10.F.7.b</td><td style="padding: 2px;">III.10.K.1.a.iv</td></tr> <tr><td style="padding: 2px;">III.10.F.7.d.i</td><td style="padding: 2px;">III.10.M.1.d</td></tr> <tr><td style="padding: 2px;">III.10.G.1.d</td><td style="padding: 2px;">III.10.M.3.a</td></tr> </tbody> </table>					III.10.C.2.a	III.10.G.3.a	III.10.D.3.b	III.10.H.1.a.iii	III.10.E.1.d	III.10.H.1.a.iv	III.10.E.3.a	III.10.I.1.a.iv	III.10.F.1.d	III.10.J.1.a.iii	III.10.F.3.d.iii	III.10.J.1.a.iv	III.10.F.7.b	III.10.K.1.a.iv	III.10.F.7.d.i	III.10.M.1.d	III.10.G.1.d	III.10.M.3.a
III.10.C.2.a	III.10.G.3.a																					
III.10.D.3.b	III.10.H.1.a.iii																					
III.10.E.1.d	III.10.H.1.a.iv																					
III.10.E.3.a	III.10.I.1.a.iv																					
III.10.F.1.d	III.10.J.1.a.iii																					
III.10.F.3.d.iii	III.10.J.1.a.iv																					
III.10.F.7.b	III.10.K.1.a.iv																					
III.10.F.7.d.i	III.10.M.1.d																					
III.10.G.1.d	III.10.M.3.a																					
In accordance with Permit Condition III.10.C.2.e, this permit modification includes redline changes to Permit Conditions listed in the above table.																						
WAC 173-303-830 Modification Class:	Class 1	Class ¹ 1	Class 2	Class 3																		
Please mark the Modification Class:		X																				
Enter relevant WAC 173-303-830, Appendix I Modification citation number:																						
Enter wording of WAC 173-303-830, Appendix I Modification citation:																						
Modification Approved/Concur:	<input type="checkbox"/> Yes	<input type="checkbox"/> Denied (state reason below)																				
Reason for denial:	Reviewed by Ecology:																					
	S. Dahl		Date																			

1 **III.10.A COMPLIANCE WITH APPROVED PERMIT**

2 **III.10.B STANDARD CONDITIONS AND GENERAL FACILITY CONDITIONS**

3 In addition to the conditions in this chapter, the Permittees must comply with all the applicable portions
4 of the Dangerous Waste Permit for the Hanford Facility. In the event that a Unit-Specific Condition for
5 the WTP Unit in Permit Conditions [III.10.C](#), through [III.10.M](#), conflicts with a general condition in
6 Permit Conditions I and II of this permit, the Unit-Specific Condition will apply to the WTP Unit.

7 **III.10.C UNIT-SPECIFIC CONDITIONS FOR THE WTP UNIT**

8 **III.10.C.1 RESERVED**

9 **III.10.C.2 General Waste Management**

10 **III.10.C.2.a** Treatment or storage of dangerous waste or mixed waste in any new or modified portion
11 of the facility may commence when the Permittees have submitted to Ecology, by
12 certified mail, or hand delivery, a letter signed by the Permittees and a **rRegistered**
13 **pProfessional eEngineer** stating that the facility has been constructed or modified in
14 compliance with the Permit in accordance with [WAC 173-303-810](#)(14)(a); and

15 **III.10.C.2.a.i** The Permittee has received a Permit modification approval pursuant to Permit
16 Conditions [III.10.C.2.e](#), and [III.10.C.2.f](#), or [III.10.C.2.g](#), and

17 **III.10.C.2.a.ii** Ecology has inspected the modified or newly constructed facility and finds it is in
18 compliance with the conditions of the Permit, or

19 **III.10.C.2.a.iii** Within fifteen days, of the date of submission of the Permittees' letter, Ecology has
20 not notified the Permittees of intent to inspect.

21 **III.10.C.2.b** The Permittees are authorized to accept the dangerous and/or mixed waste specified in
22 Operating Unit Group 10, Chapter 1 (Part A Form), and Chapter 3 (Waste Analysis Plan
23 [WAP]).

24 **III.10.C.2.c** All dangerous and/or mixed waste must be managed only in areas authorized for
25 dangerous and/or mixed waste management under the Permit conditions, except as
26 allowed under [WAC 173-303-200](#). The authorized dangerous and/or mixed waste
27 management areas of the WTP Unit are specified in Conditions [III.10.D](#) through
28 [III.10.M](#).

29 **III.10.C.2.d** Dangerous and/or mixed waste may be transferred from dangerous waste management
30 units within the WTP operating unit to an on-site dangerous waste management unit or an
31 off-site permitted TSD Facility using the manifest/tracking system required by permit
32 condition II.N.

33 **III.10.C.2.e** Permit modifications pursuant to this Permit for dangerous and/or mixed waste at the
34 request of the Permittees must be done according to the three tiered modification system
35 specified in [WAC 173-303-830](#)(4) and Condition I.C.3. The Permit modification request
36 must include page changes to the Permit, attachments, and permit application supporting
37 documentation necessary to incorporate the proposed permit modification.

38 **III.10.C.2.f** In addition to other requirements in [WAC 173-303-830](#), within forty-five (45) days of a
39 permit change (i.e., permit modification) being put into effect or approved, the Permittees
40 will provide copies of the Permit attachments to incorporate the change (if not already
41 reflected in the change pages submitted in the original permit modification request). This
42 submittal does not require re-certification in accordance with [WAC 173-303-810](#)(13).

- 1 **III.10.D.1.e** For the purpose of determining compliance with container storage area capacity limits
2 and containment system requirements, every waste container will be considered to be
3 full.
- 4 **III.10.D.1.f** RESERVED
- 5 **III.10.D.2** **Container Storage Areas Design and Construction**
- 6 **III.10.D.2.a** The Permittees will construct container storage areas identified in Permit Tables
7 [III.10.D.A](#) through [III.10.D.C](#), as specified in all applicable drawings and specifications
8 in Operating Unit Group 10, Appendices 9.4, 9.5, 9.7, 9.8, 9.9, 10.4, 10.5, 10.7, 10.8,
9 10.9, 12.4, 12.5, 12.7, 12.8, and 12.9, as approved pursuant to Permit Condition
10 [III.10.D.10.b](#).
- 11 **III.10.D.2.b** RESERVED
- 12 **III.10.D.2.c** All container storage areas identified in Permit Tables [III.10.D.A](#) through [III.10.D.C](#)
13 (as approved/modified pursuant to Permit Condition [III.10.D.10](#)), must be constructed to
14 protect containers from contact with accumulated liquids (e.g., leaks, spills, precipitation,
15 fire water, liquids from damaged or broken pipes) [[WAC 173-303-630\(7\)\(a\)\(i\)](#) and
16 [WAC 173-303-630\(7\)\(c\)\(ii\)](#)].
- 17 **III.10.D.2.d** Modifications to approved design, plans, and specifications for the container storage
18 areas identified in Permit Tables [III.10.D.A](#) through [III.10.D.C](#) must be made in
19 accordance with Permit Conditions [III.10.C.2.e](#), [f](#), and [g](#), or [III.10.C.9.d](#), [e](#), and [h](#).
- 20 **III.10.D.3** **Container Storage Area Installation**
- 21 **III.10.D.3.a** RESERVED
- 22 **III.10.D.3.b** The Permittees will obtain and place in the WTP Unit operating record, within thirty
23 (30) days of completion of each container storage area identified in Permit Tables
24 [III.10.D.A](#), through [III.10.D.C](#) (as approved/modified pursuant to Permit Condition
25 [III.10.D.10](#)), written statements by a qualified, installation inspector or a ~~qualified~~
26 registered, professional engineer, attesting that these areas were installed in compliance
27 with [WAC 173-303-630\(7\)\(a\)](#), (b), and (c) [[WAC 173-303-630\(7\)](#), [WAC 173-303-](#)
28 [806\(4\)\(b\)\(i\)](#)].
- 29 **III.10.D.4** **Container Management Practices**
- 30 **III.10.D.4.a** RESERVED
- 31 **III.10.D.4.b** The Permittees will manage all waste in container storage areas identified in Permit
32 Tables [III.10.D.A](#) through [III.10.D.C](#) (as approved/modified pursuant to Permit
33 Condition [III.10.D.10](#)), in accordance with procedures described in Operating Unit
34 Group 10, Chapter 4, Appendices 9.18, 10.18, and 12.15, as approved pursuant to Permit
35 Condition [III.10.D.10.c](#), and the following conditions:
- 36 **III.10.D.4.b.i** The operating records and waste tracking procedures will indicate all times at which
37 containerized dangerous and mixed waste were removed from and returned to
38 designated staging, storage, segregation, and treatment areas as approved pursuant to
39 Permit Condition [III.10.D.10.c.vi](#). ([WAC 173-303-380](#)).
- 40 **III.10.D.4.b.ii** The physical arrangement (i.e., spacing) of dangerous and mixed waste containers
41 will be as specified in [WAC 173-303-630\(5\)\(c\)](#), except for the immobilized LAW
42 containers and IHLW waste canisters, which must be as described in Operating Unit
43 Group 10, Chapter 4, Sections 4E.1.2.1, 4F.1.2.1, as updated pursuant to Permit
44 Condition [III.10.D.10.c.i](#).

- 1 **III.10.E.1.b** The Permittees may store and manage dangerous and/or mixed waste only in approved
 2 tank systems listed in Permit Tables [III.10.E.A](#) through [D](#), [I](#), [K](#), [M](#), [O](#), and [R](#) as
 3 approved/modified pursuant to Permit Condition [III.10.E.9.](#), in accordance with Permit
 4 Section [III.10.E](#) of this Permit, and in accordance with Operating Unit Group 10,
 5 Chapter 1 and 4, and Operating Unit Group 10, Appendices 8.1 through 8.15, 9.1 through
 6 9.14, 9.18, 10.1 through 10.14, 10.18, 11.1 through 11.15, and 13.1 through 13.18 of this
 7 Permit, as approved pursuant to Permit Conditions [III.10.E.9.b](#) through [e](#). The Permittees
 8 will limit the total volume of waste to quantities specified for the individual units listed in
 9 Permit Tables [III.10.E.A](#) through [D](#), [I](#), [K](#), [M](#), [O](#), and [R](#).
- 10 **III.10.E.1.c** The Permittees will manage ignitable and reactive, and incompatible waste in accordance
 11 with [WAC 173-303-395](#)(1). Any tank system specified in Permit Tables [III.10.E.A](#)
 12 through [D](#) and [III.10.E, I, K, M, O, and S](#) as approved/modified pursuant to Permit
 13 Condition [III.10.E.9.](#), in which ignitable, reactive, or incompatible waste are managed
 14 will meet the requirements specified in [WAC 173-303-640](#)(9) and (10).
- 15 **III.10.E.1.d** The Permittees will ensure all certifications required by specialists (e.g., independent,
 16 qualified, registered professional engineer; independent corrosion expert; independent,
 17 qualified installation inspector; etc.) use the following statement or equivalent pursuant to
 18 Permit Condition [III.10.C.10](#) of this Permit:
 19
 20 “I, (Insert Name) have (choose one or more of the following: overseen, supervised,
 21 reviewed, and/or certified) a portion of the design or installation of a new tank system or
 22 component located at (address), and owned/operated by (name(s)). My duties were:
 23 (e.g., installation inspector, testing for tightness, etc.), for the following tank system
 24 components (e.g., the tank, venting piping, etc.), as required by the Dangerous Waste
 Regulations, namely, [WAC 173-303-640](#)(3) (applicable paragraphs (i.e., (a) through (g)).
 25
 26 “I certify under penalty of law that I have personally examined and am familiar with the
 27 information submitted in this document and all attachments and that, based on my inquiry
 28 of those individuals immediately responsible for obtaining the information, I believe that
 29 the information is true, accurate, and complete. I am aware that there are significant
 30 penalties for submitting false information, including the possibility of fine and
 imprisonment.”
- 31 **III.10.E.1.e** In all future permit submittals, the Permittees will include tank names with the tank
 32 designation (e.g., Process Condensate Vessels located in the RLD System are designated
 33 V45028A and V45028B, respectively).
- 34 **III.10.E.2 Tank System Design and Construction**
- 35 **III.10.E.2.a** The Permittees will construct the tank systems identified in Permit Tables [III.10.E.A](#)
 36 through [D](#), [I](#), [K](#), [M](#), [O](#), and [R](#) as approved/modified pursuant to Permit Condition
 37 [III.10.E.9.](#), as specified in Operating Unit Group 10, Appendices 8.1 through 8.14, 9.1
 38 through 9.14, 10.1 through 10.14, 11.1 through 11.14, and 13.1 through 13.14 of this
 39 Permit, as approved pursuant to Permit Conditions [III.10.E.9.b.](#), [III.10.E.9.c.](#), and
 40 [III.10.E.9.d.](#)
- 41 **III.10.E.2.b** The Permittees will construct all secondary containment systems identified in Permit
 42 Tables [III.10.E.A](#) through [D](#), and [I](#) through [S](#), as approved/modified pursuant to Permit
 43 Condition [III.10.E.9.](#), as specified in Operating Unit Group 10, Appendices 8.2, 8.4
 44 through 8.15, 9.2, 9.4 through 9.14, 9.18, 10.2, 10.4 through 10.14, 10.18, 11.2, 11.4
 45 through 11.14, 11.18, and 13.2, 13.4 through 13.14, and 13.18 of this Permit, as approved
 46 pursuant to Permit Conditions [III.10.E.9.b.](#), [III.10.E.9.c.](#), and [III.10.E.9.d.](#)

- 1 **III.10.E.2.c** Modifications to approved design, plans, and specifications in Operating Unit Group 10
2 of this Permit for the WTP Unit Tank Systems will be allowed only in accordance with
3 Permit Conditions [III.10.C.2.e.](#) and [f.](#), or [III.10.C.2.g.](#), [III.10.C.9.d.](#), [e.](#), and [h.](#)
- 4 **III.10.E.2.d** The Permittees will maintain construction access to the internal portions of installed tanks
5 with pulse jet mixers until Ecology has provided written approval of the tank system
6 designs for wear allowance pursuant to [WAC 173-303-640\(3\)\(a\)](#).
- 7 **III.10.E.2.d.i** The Permittees will not install the following tanks in the WTP Unit until Ecology has
8 provided written approval of the tank system designs for wear allowance pursuant to
9 [WAC 173-303-640\(3\)\(a\)](#):
- 10 • Plant Wash Vessel, PWD-VSL-00044.
 - 11 • Acidic Waste Vessel, RLD-VSL-00007.
 - 12 • Plant Wash and Drains Vessel, RLD-VSL-00008.
 - 13 • HLW Feed Receipt Vessel, HLP-VSL-00022.
 - 14 • HLW Lag Storage Vessels, HLP-VSL-00027A and HLP-VSL-00027B.
 - 15 • HLW Feed Blend Vessel, HLP-VSL-00028.
 - 16 • Ultrafiltration Feed Preparation Vessels, UFP-VSL-00001A and UFP-VSL-
17 00001B.
 - 18 • Ultrafiltration Feed Vessels, UFP-VSL-00002A and UFP-VSL-00002B.
- 19 **III.10.E.2.d.ii** Except where exempted in writing by Ecology on the basis that wear allowance
20 provisions will not be affected, fabrication and assembly of the following tanks and
21 their internal components will be suspended until Ecology has provided written
22 approval of the tank system designs for wear allowance pursuant to [WAC 173-303-
23 640\(3\)\(a\)](#).
- 24 • HLW Feed Receipt Vessel, HLP-VSL-00022.
 - 25 • HLW Lag Storage Vessels, HLP-VSL-00027A and HLP-VSL-00027B.
 - 26 • HLW Feed Blend Vessel, HLP-VSL-00028.
 - 27 • Ultrafiltration Feed Vessels, UFP-VSL-00002A and UFP-VSL-00002B.
- 28 **III.10.E.3 Tank System Installation and Certification**
- 29 **III.10.E.3.a** The Permittees must ensure that proper handling procedures are adhered to in order to
30 prevent damage to the system during installation. Prior to covering, enclosing, or placing
31 a new tank system or component in use, an independent, qualified, installation inspector
32 or an independent, qualified, registered professional engineer, either of whom is trained
33 and experienced in the proper installation of tank systems or components, must inspect
34 the system for the presence of any of the following items:
- 35 **III.10.E.3.a.i** Weld breaks;
 - 36 **III.10.E.3.a.ii** Punctures;
 - 37 **III.10.E.3.a.iii** Scrapes of protective coatings;
 - 38 **III.10.E.3.a.iv** Cracks;
 - 39 **III.10.E.3.a.v** Corrosion;
 - 40 **III.10.E.3.a.vi** Other structural damage or inadequate construction/installation.

1 **III.10.F CONTAINMENT BUILDING UNITS**

2 **III.10.F.1 Containment Building Units and Storage Limits**

3 **III.10.F.1.a** Approved Waste and Storage Limits

4 **III.10.F.1.a.i** The Permittees may store and treat, in containment building units listed in Permit
5 Table [III.10.F.A.](#), as modified by Permit Condition [III.10.F.7.d.iv.](#), all dangerous and
6 mixed waste listed in the Part A Forms, Operating Unit Group 10, Chapter 1 of this
7 Permit, except for those wastes outside the waste acceptance criteria specified in the
8 WAP, Operating Unit Group 10, Chapter 3, as approved pursuant to Permit
9 Condition [III.10.C.3.](#) Total dangerous and mixed waste storage at the containment
10 building units will not exceed the sum of the capacities in column 7 of Permit Table
11 [III.10.F.A.](#), as modified pursuant to Permit Condition [III.10.F.7.d.iv.](#)

12 **III.10.F.1.a.ii** The Permittees may place and store dangerous and mixed waste only in the
13 containment building units listed in Permit Table [III.10.F.A.](#), as modified pursuant to
14 Permit Condition [III.10.F.7.d.iv.](#), in accordance with Permit Condition [III.10.F.](#), and
15 in accordance with Operating Unit Group 10, Chapters 1.0 and 4.0, and Operating
16 Unit Group 10, Appendices 8.1, 8.2, 8.4 through 8.10, 8.13, 8.15, 9.1, 9.2, 9.4
17 through 9.10, 9.13, 9.18, 10.1, 10.2, 10.4 through 10.10, 10.13, and 10.18 of this
18 Permit, as approved pursuant to Permit Conditions [III.10.F.7.c.](#) and [III.10.F.7.d.](#) The
19 Permittees will limit the volume of dangerous and mixed waste to quantities specified
20 for the individual areas listed in column 7 of Permit Table [III.10.F.A.](#), as modified
21 pursuant to Permit Condition [III.10.F.7.d.iv.](#)

22 **III.10.F.1.b** The Permittees will manage any ignitable, reactive, or incompatible waste in these units
23 in accordance with [WAC 173-303-395\(1\)](#). Any containment building units specified in
24 Permit Table [III.10.F.A.](#) in which ignitable, reactive, or incompatible waste are managed
25 will meet the requirements specified in [WAC 173-303-640\(9\)](#) and (10), in accordance
26 with [WAC 173-303-680\(2\)](#).

27 **III.10.F.1.c** The Permittees must maintain documentation in the operating record of the description
28 and quantity of dangerous waste in each containment building unit listed in Permit Table
29 [III.10.F.A.](#), as modified pursuant to Permit Condition [III.10.F.7.d.iv.](#), in accordance with
30 [WAC 173-303-380](#).

31 **III.10.F.1.d** The Permittees will ensure all certifications required by specialists (e.g., independent
32 qualified, registered, professional engineer, etc.) use the following statement or
33 equivalent pursuant to Permit Condition [III.10.C.10.](#):

34 "I, (Insert Name) have (choose one or more of the following: overseen, supervised,
35 reviewed, and/or certified) a portion of the design or installation of a new containment
36 building unit or component located at (address), and owned/operated by (name(s)). My
37 duties were: (e.g., design engineer, etc.), for the following containment building unit
38 components (e.g., the venting piping, etc.), as required by the Resource Conservation and
39 Recovery Act (RCRA) regulation(s), namely, [40 CFR 264.1101\(c\)\(2\)](#) in accordance with
40 [WAC 173-303-695](#)).

41 "I certify under penalty of law that I have personally examined and am familiar with the
42 information submitted in this document and all attachments and that, based on my inquiry
43 of those individuals immediately responsible for obtaining the information, I believe that
44 the information is true, accurate, and complete. I am aware that there are significant
45 penalties for submitting false information, including the possibility of fine and
46 imprisonment."

1 and [WAC 173-303-320](#) and record in the Facility's operating record, at least once every
2 seven (7) days, data gathered from monitoring equipment and leak detection equipment
3 as well as the containment building unit and area immediately surrounding the
4 containment building unit to detect signs of releases of dangerous and mixed waste.

5 **III.10.F.3.d** Throughout the active life of the containment building unit, if the Permittees detects a
6 condition that could lead to or has caused a release of dangerous and/or mixed waste, the
7 Permittees must repair the condition promptly, in accordance with the following
8 procedures:

9 **III.10.F.3.d.i** Upon detection of a condition that has led to the release of dangerous and/or mixed
10 waste (e.g., upon detection of leakage from the primary barrier) the Permittees must:

- 11 A. Enter a record of the discovery in the facility operating record;
- 12 B. Immediately remove the portion of the containment building unit affected by the
13 condition from service;
- 14 C. Determine what steps must be taken to repair the containment building unit,
15 remove any leakage from the secondary collection system, and establish a
16 schedule for accomplishing the cleanup and repairs; and
- 17 D. Within seven (7) days after the discovery of the condition, notify Ecology of the
18 condition, and within fourteen (14) working days, provide a written notice to
19 Ecology with a description of the steps taken to repair the containment building
20 unit, and the schedule for accomplishing the work.

21 **III.10.F.3.d.ii** Ecology will review the information submitted, make a determination regarding
22 whether the containment building unit must be removed from service completely or
23 partially until repairs and cleanup are complete, and notify the Permittees of the
24 determination and underlying rationale in writing.

25 **III.10.F.3.d.iii** Upon completing all repairs and cleanup the Permittees must notify Ecology in
26 writing and provide verification, signed by an independent qualified, registered,
27 professional engineer, that repairs have been completed according to the written
28 notice submitted in accordance with Permit Condition [III.10.F.3.d.i.D.](#)

29 **III.10.F.4 Inspections [\[WAC 173-303-640\(6\)\]](#)**

30 **III.10.F.4.a** The Permittees will inspect the containment building units in accordance with the
31 Inspection Plan in Operating Unit Group 10, Chapter 6 of this Permit, as modified
32 pursuant to Permit Condition [III.10.C.5.c.](#)

33 **III.10.F.4.b** The inspection data for the containment building units will be recorded, and the records
34 will be placed in the WTP Unit operating record, in accordance with Permit Condition
35 [III.10.C.4.](#)

36 **III.10.F.5 Recordkeeping [\(WAC 173-303-380\)](#)**

37 For the containment building units, the Permittees will record and maintain in the WTP
38 Unit operating record, all monitoring, calibration, recording, maintenance, test data, and
39 inspection data compiled under the conditions of this Permit, in accordance with Permit
40 Conditions [III.10.C.4.](#) and [III.10.C.5.](#)

41 **III.10.F.6 Closure**

42 The Permittees will close the containment building units in accordance with Operating
43 Unit Group 10, Chapter 11 of this Permit, as approved pursuant to Permit Condition
44 [III.10.C.8.](#)

- 1 **III.10.F.7 Compliance Schedule**
- 2 **III.10.F.7.a** All information identified for submittal to Ecology in Permit Conditions [III.10.F.7.b.](#)
3 through [e.](#) of this compliance schedule must be signed in accordance with requirements in
4 [WAC 173-303-810\(12\)](#), as modified in accordance with Permit Condition [III.10.F.1.d.](#)
5 [\[WAC 173-303-806\(4\)\]](#).
- 6 **III.10.F.7.b** Prior to initial receipt of dangerous and/or mixed waste, the Permittees will submit to
7 Ecology a certification by an **independent** qualified, registered, professional engineer that
8 the containment building units design meets the requirements of Permit Conditions
9 [III.10.F.1.](#) and [III.10.F.2.](#) in accordance with Permit Condition [III.10.F.7.a.](#) The
10 certification will also be stored in the WTP Unit operating record. For containment
11 buildings units in Permit Table [III.10.F.A.](#), as modified pursuant to Permit Condition
12 [III.10.F.7.d.iv.](#), identified as allowed to manage free liquids, the certification will include
13 an additional demonstration that the containment building meets the requirements
14 specified in [40 CFR 264.1101\(b\)](#), in accordance with [WAC 173-303-695](#).
- 15 **III.10.F.7.c** The Permittees submit to Ecology pursuant to Permit Condition [III.10.C.9.f.](#), prior to
16 construction of the containment building unit containment system, and as appropriate,
17 leak detection system for each containment building unit (per level, per WTP Unit
18 building) as identified in Permit Condition [III.10.F.1.](#), Permit Tables [III.10.F.A.](#),
19 engineering information as specified below, for incorporation, as appropriate, into
20 Operating Unit Group 10, Appendices 8.1, 8.2, 8.3, 8.4 through 8.10, 8.13, 8.15, 9.1, 9.2,
21 9.4 through 9.10, 9.13, 9.18, 10.1, 10.2, 10.4 through 10.10, 10.13, and 10.18 of this
22 Permit. At a minimum, engineering information specified below will show the following
23 as required in accordance with [WAC 173-303-695](#) (the information specified below will
24 include dimensioned engineering drawings showing floors, walls, and ceilings/roof of the
25 containment building units and other information on floor drains and sumps):
- 26 **III.10.F.7.c.i** Design drawings (General Arrangement Drawings in plan) and specifications for the
27 foundation, containment, including liner/coating installation details and leak
28 detection methodology, as appropriate [\[40 CFR 264.1101\(a\)\(1\) and \(b\)](#), in
29 accordance with [WAC 173-303-695\]](#).
- 30 **III.10.F.7.c.ii** The Permittees provide the design criteria (references to codes and standards, load
31 definitions and load combinations, materials of construction, and analysis/design
32 methodology) and typical design details for the support of the containment system.
33 This information demonstrate the foundation will be capable of providing support to
34 the secondary containment system, resistance to pressure gradients above and below
35 the system, and capable of preventing failure due to settlement, compression, or uplift
36 [\[40 CFR 264.1101\(a\)\(2\)](#) in accordance with [WAC 173-303-695](#), in accordance with
37 [WAC 173-303-695\]](#).
- 38 **III.10.F.7.c.iii** The Permittees provide documentation addressing how coatings will withstand the
39 movement of personnel, waste, and equipment during the operating life of the
40 containment building per [40 CFR 264.1101\(a\)\(2\)](#), (a)(4), and (b) in accordance with
41 [WAC 173-303-695](#).
- 42 **III.10.F.7.c.iv** Containment/foundation and, as appropriate, for leak detection systems, materials
43 selection documentation (including, but not limited to, concrete coatings and water
44 stops, and liner materials as applicable [e.g. physical and chemical tolerances])
45 [\[40 CFR 264.1101\(a\)\(4\)](#) and (b) in accordance with [WAC 173-303-695\]](#).
- 46 **III.10.F.7.c.v** A detailed description of how the containment/foundation and, as appropriate, leak
47 detection systems, will be installed.

- 1 **III.10.F.7.c.vi** Submit Permit Tables [III.10.F.B](#) and [III.10.F.C](#), completed to provide for all
2 secondary containment sumps and floor drains, the information as specified in each
3 column heading, consistent with the information to be provided in i. through viii.
- 4 **III.10.F.7.c.vii** A detailed description of how fugitive emissions will be controlled such that any
5 openings (e.g., doors, windows, vents, cracks, etc.) exhibit no visible emissions
6 [\[40 CFR 264.1101\(c\)\(1\)\(iv\)](#) in accordance with [WAC 173-303-695](#)].
- 7 **III.10.F.7.c.viii** Prior to installation, the Permittees will submit coating vendor information specific to
8 containment buildings for incorporation into the Administrative Record
9 [\[40 CFR 264.1101\(a\)\(4\)](#) and (b) in accordance with [WAC 173-303-695](#)].
- 10 **III.10.F.7.c.ix** Prior to installation, leak detection system documentation (e.g. vendor information,
11 etc.) consistent with information submitted under i. above, will be submitted for
12 incorporation into the Administrative Record;
- 13 **III.10.F.7.c.x** Prior to installation, the Permittees will submit leak detection system instrumentation
14 control logic narrative description (e.g., descriptions of fail-safe conditions, etc.);
- 15 **III.10.F.7.c.xi** Prior to installation, system descriptions related to leak detection systems will be
16 submitted for incorporation into the Administrative Record;
- 17 **III.10.F.7.c.xii** For leak detection system instrumentation for containment buildings as identified in
18 Permit Tables [III.10.F.D.](#), a detailed description of how the leak detection system
19 instrumentation will be installed and tested [\[40 CFR 264.1101\(b\)\(3\)](#) in accordance
20 with [WAC 173-303-695](#)] will be submitted prior to installation.
- 21 Information pertaining to leak detection systems in Permit Conditions [III.10.F.7.c.ix.](#)
22 through [xii.](#) Will be submitted pursuant to Permit Conditions [III.10.E.9.d.vii.](#), [viii.](#),
23 [x.](#), and [xiii.](#)
- 24 **III.10.F.7.d** Prior to initial receipt of dangerous and mixed waste, in the WTP Unit, the Permittees
25 will submit the following, as specified below, for incorporation into Operating Unit
26 Group 10. The information specified below into Operating Unit Group 10, and
27 incorporated pursuant to Permit Condition [III.10.C.2.g.](#) will be followed:
- 28 **III.10.F.7.d.i** ~~Independent qualified R~~egistered ~~P~~rofessional ~~E~~ngineer certification
29 documentation consistent with the information provided in [III.10.F.7.b.](#) and
30 [III.10.F.7.c.](#) for incorporation in the Administrative Record. The certification must
31 be maintained in the WTP Unit Operating Record [\[40 CFR 264.1101\(c\)\(2\)](#)];
- 32 **III.10.F.7.d.ii** Updated Chapter 4, Sections 4D.1, 4E.1, 4F.1, 4H.1, 4I.1, and the figures for
33 containment building units identified in Permit Table [III.10.F.A.](#) (as modified
34 pursuant to Permit Condition [III.10.F.7.d.iv.](#), consistent with Operating Unit Group
35 10, Appendices 8.1, 8.2, 8.4 through 8.10, 8.13, 8.15, 9.1, 9.2, 9.4 through 9.10, 9.13,
36 9.18, 10.1, 10.2, 10.4 through 10.10, 10.13, and 10.18, as approved pursuant Permit
37 Conditions [III.10.F.7.a.](#) through [d.](#));
- 38 **III.10.F.7.d.iii** Description of operating procedures demonstrating compliance with
39 [40 CFR 264.1101\(c\)](#) and (d) in accordance with [WAC 173-303-695](#);
- 40 **III.10.F.7.d.iv** Permit Table [III.10.F.A.](#), amended as follows:
- 41 A. Under column 1, update and complete list of dangerous and mixed waste
42 containment building units including room location and number.
- 43 B. Under column 2, update unit dimensions.

1 **III.10.G PRETREATMENT PLANT MISCELLANEOUS UNIT SYSTEMS**

2 Unless otherwise noted in Table [III.10.G.A](#), for purposes of Permit Section [III.10.G](#),
 3 where reference is made to [WAC 173-303-640](#), the following substitutions apply:
 4 substitute the terms "Pretreatment Plant Miscellaneous Unit System(s)" for "tank
 5 system(s)," "miscellaneous unit(s)" for "tank(s)," "equipment" for "ancillary equipment,"
 6 and "miscellaneous unit(s) or equipment of a Pretreatment Plant Miscellaneous Unit
 7 System" for "component(s)" in accordance with [WAC 173-303-680](#). Miscellaneous unit
 8 systems, exempt from the [WAC-173-303-640](#) requirements in Permit Section III.10.G are
 9 noted as exempt in Table [III.10.G.A](#).

10 **III.10.G.1 Waste and Storage Limits**

11 **III.10.G.1.a** The Permittees may process, in the Pretreatment Plant Miscellaneous Unit Systems listed
 12 in Permit Table [III.10.G.A](#), as approved/modified pursuant to Permit Condition
 13 [III.10.G.10](#), all dangerous and mixed waste listed in the Part A Forms, Operating Unit
 14 Group 10, Chapter 1 of this Permit, and in accordance with in the WAP, Operating Unit
 15 Group 10, Chapter 3 of this Permit, as approved pursuant to Permit Condition [III.10.C.3](#).
 16 Total Pretreatment Plant Miscellaneous Unit dangerous and mixed waste storage at the
 17 Facility will not exceed the limits specified in Permit Table [III.10.G.A](#).

18 **III.10.G.1.b** The Permittees may process dangerous and mixed waste only in approved Pretreatment
 19 Plant Miscellaneous Unit Systems listed in Permit Table [III.10.G.A](#) in accordance with
 20 Permit Section [III.10.G](#) and in accordance with Operating Unit Group 10, Chapters 1.0
 21 and 4.0 of this Permit, and Operating Unit Group 10, Appendices 8.1 through 8.15 of this
 22 Permit, as approved pursuant to Permit Conditions [III.10.G.10.b](#). through [e](#). The
 23 Permittees will limit the total volume of wastes to quantities specified for the individual
 24 miscellaneous units listed in Permit Table [III.10.G.A](#).

25 **III.10.G.1.c** The Permittees will manage ignitable and reactive, and incompatible waste in accordance
 26 with [WAC 173-303-395\(1\)](#). Any Pretreatment Plant Miscellaneous Unit System
 27 specified in Permit Tables [III.10.G.A](#) and [III.10.G.B](#) in which ignitable, reactive or
 28 incompatible waste are managed will meet the requirements specified in [WAC 173-303-](#)
 29 [640\(9\)](#) and (10), in accordance to [WAC 173-303-680](#).

30 **III.10.G.1.d** The Permittees will ensure all certifications required by specialists (e.g., independent,
 31 qualified, registered professional engineer; independent corrosion expert; independent,
 32 qualified installation inspector; etc.) use the following statement or equivalent pursuant to
 33 Permit Condition [III.10.C.10](#):

34 "I, (Insert Name) have (choose one or more of the following: overseen, supervised,
 35 reviewed, and/or certified) a portion of the design or installation of a new miscellaneous
 36 unit system or component located at (address), and owned/operated by (name(s)). My
 37 duties were: (e.g., installation inspector, testing for tightness, etc.), for the following
 38 miscellaneous unit system components (e.g., the venting piping, etc.), as required by the
 39 Dangerous Waste Regulations, namely, [WAC 173-303-640\(3\)](#) (applicable paragraphs
 40 (i.e., (a) through (g)) in accordance with [WAC 173-303-680](#)).

41 "I certify under penalty of law that I have personally examined and am familiar with the
 42 information submitted in this document and all attachments and that, based on my inquiry
 43 of those individuals immediately responsible for obtaining the information, I believe that
 44 the information is true, accurate, and complete. I am aware that there are significant
 45 penalties for submitting false information, including the possibility of fine and
 46 imprisonment."

- 1 **III.10.G.1.e** In all future narrative permit submittals, the Permittees will include miscellaneous unit
2 system names with the unit designation (e.g., Waste Feed Evaporator Separator Vessels
3 are designated V11002A and V11002B, respectively).
- 4 **III.10.G.2** **Miscellaneous Unit Systems Design and Construction** [[WAC 173-303-640](#),
5 in accordance with [WAC 173-303-680\(2\)](#) and [WAC 173-303-340](#)].
- 6 **III.10.G.2.a** The Permittees will construct the Pretreatment Plant Miscellaneous Unit Systems
7 identified in Permit Table [III.10.G.A](#), as specified in Operating Unit Group 10,
8 Appendices 8.1 through 8.14 of this Permit, as approved pursuant to Permit Conditions
9 [III.10.G.10.b.](#), [III.10.G.10.c.](#), and [III.10.G.10.d.](#)
- 10 **III.10.G.2.b** The Permittees will construct secondary containment systems for the Pretreatment Plant
11 Miscellaneous Unit Systems identified in Permit Tables [III.10.G.A](#) and [III.10.G.B](#), as
12 specified in Operating Unit Group 10, Appendices 8.2, 8.4 through 8.14 of this Permit, as
13 approved pursuant to Permit Conditions [III.10.G.10.b.](#), [III.10.G.10.c.](#), and [III.10.G.10.d.](#)
- 14 **III.10.G.2.c** Modifications to approved design, plans, and specifications in Operating Unit Group 10
15 of this Permit for the Pretreatment Plant Miscellaneous Unit Systems will be allowed
16 only in accordance with Permit Conditions [III.10.C.2.e.](#) and [f.](#), or [III.10.C.2.g.](#),
17 [III.10.C.9.d.](#), [e.](#), and [h.](#)
- 18 **III.10.G.3** **Miscellaneous Unit System Installation and Certification** [[WAC 173-303-640](#),
19 in accordance with [WAC 173-303-680\(2\)](#) and (3), and [WAC 173-303-340](#)].
- 20 **III.10.G.3.a** The Permittees must ensure that proper handling procedures are adhered to in order to
21 prevent damage to Pretreatment Plant Miscellaneous Unit Systems during installation.
22 Prior to covering, enclosing, or placing a new Pretreatment Plant Miscellaneous Unit
23 System(s) or component(s) in use, an independent, qualified, installation inspector or an
24 independent, qualified, registered professional engineer, either of whom is trained and
25 experienced in the proper installation of similar systems or components, must inspect the
26 system for the presence of any of the following items:
- 27 **III.10.G.3.a.i** Weld breaks;
- 28 **III.10.G.3.a.ii** Punctures;
- 29 **III.10.G.3.a.iii** Scrapes of protective coatings;
- 30 **III.10.G.3.a.iv** Cracks;
- 31 **III.10.G.3.a.v** Corrosion;
- 32 **III.10.G.3.a.vi** Other structural damage or inadequate construction/installation;
- 33 **III.10.G.3.a.vii** All discrepancies must be remedied before the Pretreatment Plant Miscellaneous Unit
34 Systems are covered, enclosed, or placed in use [[WAC 173-303-640\(3\)\(c\)](#) in
35 accordance with [WAC 173-303-680\(2\)](#) and (3)].
- 36 **III.10.G.3.b** For Pretreatment Plant Miscellaneous Unit Systems or components that are placed
37 underground and that are back-filled, the Permittees must provide a backfill material that
38 is a non-corrosive, porous, homogeneous substance. The backfill must be installed so
39 that it is placed completely around the miscellaneous unit and compacted to ensure that
40 the miscellaneous unit and piping are fully and uniformly supported [[WAC 173-303-](#)
41 [640\(3\)\(d\)](#), in accordance with [WAC 173-303-680\(2\)](#) and (3)].
- 42 **III.10.G.3.c** The Permittees must test for tightness all new Pretreatment Plant miscellaneous units and
43 equipment, prior to being covered, enclosed, or placed into use. If the Pretreatment Plant
44 Miscellaneous Unit Systems are found not to be tight, all repairs necessary to remedy the

1 **III.10.H LAW VITRIFICATION SYSTEM – SHORT TERM MISCELLANEOUS**
2 **THERMAL TREATMENT UNIT-SHAKEDOWN, DEMONSTRATION TEST, AND**
3 **POST DEMONSTRATION TEST**

4 For purposes of Permit Section [III.10.H](#), where reference is made to [WAC 173-303-640](#),
5 the following substitutions apply: substituting the terms “LAW Vitrification System” for
6 “tank system(s),” “sub-system(s)” for “tank(s),” “sub-system equipment” for “ancillary
7 equipment,” and “sub-system(s) or sub-system equipment of a LAW Vitrification
8 System” for “component(s)” in accordance with [WAC 173-303-680](#).

9 **III.10.H.1 General Conditions During Shakedown, Demonstration Test, and Post-**
10 **Demonstration Test for LAW Vitrification System**

11 **III.10.H.1.a** Construction and Maintenance [[WAC 173-303-640](#), in accordance with [WAC 173-303-](#)
12 [680](#)(2) and (3), and [WAC 173-303-340](#)].

13 **III.10.H.1.a.i** The Permittees will construct the LAW Vitrification System (listed in Permit Tables
14 [III.10.H.A](#) and [B](#)., as approved/modified pursuant to Permit Condition [III.10.H.5.](#)) as
15 specified in Permit Condition [III.10.H.1.](#) and Operating Unit Group 10, Chapter 4 of
16 this Permit, and Operating Unit Group 10, Appendices 9.1 through 9.15 and 9.17 of
17 this Permit, as approved pursuant to Permit Conditions [III.10.H.5.a.](#) through [d.](#), and
18 [III.10.H.5.f.](#)

19 **III.10.H.1.a.ii** The Permittees will construct all containment systems for the LAW Vitrification
20 System as specified in Operating Unit Group 10, Chapter 4 of this Permit, and
21 Operating Unit Group 10, Appendices 9.2 and 9.4 through 9.14 of this Permit, as
22 approved pursuant to Permit Conditions [III.10.H.5.a.](#) through [d.](#)

23 **III.10.H.1.a.iii** The Permittees will ensure all certifications required by specialists (e.g., independent,
24 qualified registered professional engineer, independent corrosion expert,
25 independent, qualified installation inspector, etc.) use the following statement or
26 equivalent pursuant to Permit Condition [III.10.C.10.](#):

27 “I, (Insert Name) have (choose one or more of the following: overseen, supervised,
28 reviewed, and/or certified) a portion of the design or installation of a new LAW
29 Vitrification System or component located at (address), and owned/operated by
30 (name(s)). My duties were: (e.g., installation inspector, testing for tightness, etc.), for
31 the following LAW Vitrification System components (e.g., the venting piping, etc.),
32 as required by the Dangerous Waste Regulations, namely, [WAC 173-303-640](#)(3)
33 (applicable paragraphs (i.e., (a) through (g)) in accordance with [WAC 173-303-680](#)).

34 “I certify under penalty of law that I have personally examined and am familiar with
35 the information submitted in this document and all attachments and that, based on my
36 inquiry of those individuals immediately responsible for obtaining the information, I
37 believe that the information is true, accurate, and complete. I am aware that there are
38 significant penalties for submitting false information, including the possibility of fine
39 and imprisonment.”

40 **III.10.H.1.a.iv** The Permittees must ensure that proper handling procedures are adhered to in order
41 to prevent damage to the LAW Vitrification System during installation. Prior to
42 covering, enclosing, or placing the new LAW Vitrification System or component in
43 use, an independent, qualified, installation inspector or an independent, qualified,
44 registered professional engineer, either of whom is trained and experienced in the
45 proper installation of similar systems or components, must inspect the system for the
46 presence of any of the following items:

1 **III.10.I LAW VITRIFICATION SYSTEM – LONG TERM MISCELLANEOUS THERMAL**
2 **TREATMENT UNIT**

3 For purposes of Permit Section [III.10.I](#), where reference is made to [WAC 173-303-640](#),
4 the following substitutions apply: substitute the terms “LAW Vitrification System” for
5 “tank system(s),” “sub-system(s)” for “tank(s),” “sub-system equipment” for “ancillary
6 equipment,” and “sub-system(s) or sub-system equipment of a LAW Vitrification
7 System” for “component(s),” in accordance with [WAC 173-303-680](#).

8 **III.10.I.1 Requirements For LAW Vitrification System Beginning Normal Operation**

9 Prior to commencing normal operations provided in Permit Section [III.10.I](#), all
10 requirements in Permit Section [III.10.H](#) will have been met by the Permittees and
11 approved by Ecology, including the following: The LAW Vitrification System
12 Demonstration Test results and the revised Final Risk Assessment provided for in Permit
13 Condition [III.10.C.11.c](#) or [III.10.C.11.d](#) and Permit Section [III.10.H](#), will have been
14 evaluated and approved by Ecology, Permit Tables [III.10.I.D](#) and [F](#), as
15 approved/modified pursuant to Permit Condition [III.10.H.5](#), will have been completed,
16 submitted and approved pursuant to Permit Condition [III.10.H.3.d.v](#) and Permit Table
17 [III.10.I.E](#), as approved/modified pursuant to Permit Condition [III.10.H.5](#), will have been
18 completed, submitted and approved pursuant to Permit Condition [III.10.C.11.c](#) or [d](#).

19 **III.10.I.1.a Construction and Maintenance** [[WAC 173-303-640](#), in accordance with [WAC 173-303-](#)
20 [680\(2\)](#) and (3) and [WAC 173-303-340](#)].

21 **III.10.I.1.a.i** The Permittees will maintain the design and construction of the LAW Vitrification
22 System as specified in Permit Condition [III.10.I.1](#), Operating Unit Group 10,
23 Chapter 4 of this Permit, and Operating Unit Group 10, Appendices 9.1 through 9.17
24 of this Permit, as approved pursuant to Permit Conditions [III.10.H.5.a](#) through [d](#) and
25 [III.10.H.5.f](#).

26 **III.10.I.1.a.ii** The Permittees will maintain the design and construction of all containment systems
27 for the LAW Vitrification System, as specified in Operating Unit Group 10, Chapter
28 4 of this Permit, and Operating Unit Group 10, Appendices 9.2 and 9.4 through 9.14
29 of this Permit, as approved pursuant to Permit Conditions [III.10.H.5.a](#) through [d](#).

30 **III.10.I.1.a.iii** Modifications to approved design, plans, and specifications in Operating Unit
31 Group 10 of this Permit for the LAW Vitrification System will be allowed only in
32 accordance with Permit Conditions [III.10.C.2.e](#) and [f](#), or [III.10.C.2.g](#), [III.10.C.9.d](#),
33 [e](#), and [h](#).

34 **III.10.I.1.a.iv** The Permittees will ensure all certifications required by specialists (e.g., independent,
35 qualified; registered professional engineer; registered professional engineer;
36 independent corrosion expert; independent, qualified installation inspector;
37 installation inspector; etc.) use the following statement or equivalent pursuant to
38 Permit Condition [III.10.C.10](#):

39 “I, (Insert Name) have (choose one or more of the following: overseen, supervised,
40 reviewed, and/or certified) a portion of the design or installation of a new LAW
41 Vitrification system or component located at (address), and owned/operated by
42 (name(s)). My duties were: (e.g., installation inspector, testing for tightness, etc.), for
43 the following LAW Vitrification System components (e.g., the venting piping, etc.),
44 as required by the Dangerous Waste Regulations, namely, [WAC 173-303-640\(3\)](#)
45 (applicable paragraphs [i.e., (a) through (g)], in accordance with [WAC 173-303-680](#).

1 **III.10.J HLW VITRIFICATION SYSTEM – SHORT TERM MISCELLANEOUS**
2 **THERMAL TREATMENT UNIT-SHAKEDOWN, DEMONSTRATION TEST, AND**
3 **POST DEMONSTRATION TEST**

4 For purposes of Permit Section [III.10.J](#), where reference is made to [WAC 173-303-640](#),
5 the following substitutions apply: substituting the terms “HLW Vitrification System” for
6 “tank system(s),” “sub-system(s)” for “tank(s),” “sub-system equipment” for “ancillary
7 equipment,” and “sub-system(s) or sub-system equipment of a HLW Vitrification
8 System” for “component(s),” in accordance with [WAC 173-303-680](#).

9 **III.10.J.1 General Conditions During Shakedown, Demonstration Test, and Post-**
10 **Demonstration Test for HLW Vitrification System**

11 **III.10.J.1.a** Construction and Maintenance [[WAC 173-303-640](#), in accordance with [WAC 173-303-](#)
12 [680\(2\)](#) and (3), and [WAC 173-303-340](#)].

13 **III.10.J.1.a.i** The Permittees will construct the HLW Vitrification System (listed in Permit Tables
14 [III.10.J.A](#) and [III.10.J.B](#), as approved/modified pursuant to Permit Condition
15 [III.10.J.5.](#)) as specified in Permit Condition [III.10.J.1.](#) and Operating Unit Group 10,
16 Chapter 4 of this Permit, and Operating Unit Group 10, Appendices 10.1 through
17 10.15 and 10.17 of this Permit, as approved pursuant to Permit Conditions
18 [III.10.J.5.a.](#) through [d.](#), and [III.10.J.5.f.](#)

19 **III.10.J.1.a.ii** The Permittees will construct all containment systems for the HLW Vitrification
20 System as specified in Operating Unit Group 10, Chapter 4 of this Permit, and
21 Operating Unit Group 10, Appendices 10.2, 10.4, through 10.14 of this Permit, as
22 approved pursuant to Permit Conditions [III.10.J.5.a.](#) through [d.](#)

23 **III.10.J.1.a.iii** The Permittees will ensure all certifications required by specialists (e.g., independent,
24 qualified, registered professional engineer, independent corrosion expert,
25 independent qualified installation inspector, etc.) use the following statement or
26 equivalent pursuant to Permit Condition [III.10.C.10.](#):

27 “I, (Insert Name) have (choose one or more of the following: overseen, supervised,
28 reviewed, and/or certified) a portion of the design or installation of a new HLW
29 Vitrification system or component located at (address), and owned/operated by
30 (name(s)). My duties were: (e.g., installation inspector, testing for tightness, etc.), for
31 the following HLW Vitrification system components (e.g., the venting piping, etc.),
32 as required by the Dangerous Waste Regulations, namely, [WAC 173-303-640\(3\)](#)
33 (applicable paragraphs (i.e., (a) through (g)) in accordance with [WAC 173-303-680](#)).

34 “I certify under penalty of law that I have personally examined and am familiar with
35 the information submitted in this document and all attachments and that, based on my
36 inquiry of those individuals immediately responsible for obtaining the information, I
37 believe that the information is true, accurate, and complete. I am aware that there are
38 significant penalties for submitting false information, including the possibility of fine
39 and imprisonment.”

40 **III.10.J.1.a.iv** The Permittees must ensure that proper handling procedures are adhered to in order
41 to prevent damage to the HLW Vitrification System during installation. Prior to
42 covering, enclosing, or placing the new HLW Vitrification System or component in
43 use, an independent, qualified, installation inspector or an independent, qualified,
44 registered professional engineer, either of whom is trained and experienced in the
45 proper installation of similar systems or components, must inspect the system for the
46 presence of any of the following items:

1 approved by Ecology, Permit Tables [III.10.K.D](#) and [E](#), as approved/modified pursuant to
 2 Permit Condition [III.10.J.5](#), will have been completed, submitted and approved pursuant
 3 to Permit Condition [III.10.J.3.d.v.](#) and Permit Table [III.10.K.E](#), as approved/modified
 4 pursuant to Permit Condition [III.10.J.5](#), will have been completed, submitted and
 5 approved pursuant to Permit Conditions [III.10.C.11.c.](#) or [d.](#)

6 **III.10.K.1.a** Construction and Maintenance [[WAC 173-303-640](#), in accordance with [WAC 173-303-](#)
 7 [680\(2\)](#) and (3), and [WAC 173-303-340](#)]

8 **III.10.K.1.a.i** The Permittees will maintain the design and construction of the HLW Vitrification
 9 System as specified in Permit Condition [III.10.K.1](#), Operating Unit Group 10,
 10 Chapter 4 of this Permit, and Operating Unit Group 10, Appendices 10.1 through
 11 10.17 of this Permit, as approved pursuant to Permit Conditions [III.10.J.5.a.](#)
 12 through [d.](#) and [III.10.J.5.f.](#)

13 **III.10.K.1.a.ii** The Permittees will maintain the design and construction of all containment systems
 14 for the HLW Vitrification System as specified in Operating Unit Group 10, Chapter 4
 15 of this Permit, and Operating Unit Group 10, Appendices 10.2 and 10.4 through
 16 10.14 of this Permit, as approved pursuant to Permit Conditions [III.10.J.5.a.](#)
 17 through [d.](#)

18 **III.10.K.1.a.iii** Modifications to approved design, plans, and specifications in Operating Unit
 19 Group 10, of this Permit, for the HLW Vitrification System will be allowed only in
 20 accordance with Permit Conditions [III.10.C.2.e.](#) and [f.](#), or [III.10.C.2.g.](#), [III.10.C.9.d.](#),
 21 [e.](#), and [h.](#)

22 **III.10.K.1.a.iv** The Permittees will ensure all certifications required by specialists (e.g., independent;
 23 qualified; registered professional engineer; registered, professional engineer;
 24 independent corrosion expert; independent; qualified installation inspector;
 25 installation inspector; etc.) use the following statement or equivalent pursuant to
 26 Permit Condition [III.10.C.10](#):

27 “I, (Insert Name) have (choose one or more of the following: overseen, supervised,
 28 reviewed, and/or certified) a portion of the design or installation of a new HLW
 29 Vitrification system or component located at (address), and owned/operated by
 30 (name(s)). My duties were: (e.g., installation inspector, testing for tightness, etc.), for
 31 the following HLW Vitrification system components (e.g., the venting piping, etc.),
 32 as required by the Dangerous Waste Regulations, namely, [WAC 173-303-640\(3\)](#)
 33 (applicable paragraphs [i.e., (a) through (g)]), in accordance with [WAC 173-303-680](#).

34 “I certify under penalty of law that I have personally examined and am familiar with
 35 the information submitted in this document and all attachments and that, based on my
 36 inquiry of those individuals immediately responsible for obtaining the information, I
 37 believe that the information is true, accurate, and complete. I am aware that there are
 38 significant penalties for submitting false information, including the possibility of fine
 39 and imprisonment.”

40 **III.10.K.1.a.v** The Permittees will ensure periodic integrity assessments are conducted on the HLW
 41 Vitrification System listed in Permit Table [III.10.I.A](#), as approved/modified pursuant
 42 to Permit Condition [III.10.J.5](#), over the term of this Permit, in accordance with
 43 [WAC 173-303-680\(2\)](#) and (3), as specified in [WAC 173-303-640\(3\)\(b\)](#) following the
 44 description of the integrity assessment program and schedule in Operating Unit
 45 Group 10, Addendum E of this Permit, as approved pursuant to Permit Conditions
 46 [III.10.J.5.e.i.](#) and [III.10.C.5.c.](#) Results of the integrity assessments will be included in

- 1 **III.10.L.16.b.vi** The Permittees will ensure that incompatible wastes/material are not placed in the
2 same tank system, unless [WAC 173-303-395\(1\)\(b\)](#) is complied with. [[WAC 173-
3 303-640\(10\)\(a\)](#)]
- 4 **III.10.L.16.b.vii** The Permittees will not place dangerous waste in a tank system that has not been
5 previously decontaminated and that previously held an incompatible waste/material,
6 unless [WAC 173-303-395\(1\)\(b\)](#) is complied with. [[WAC 173-303-640\(10\)\(b\)](#)]
- 7 **III.10.L.16.b.viii** If there is indication that a tank system is leaking or unfit for use, the Permittees will
8 comply with [WAC 173-303-640\(7\)](#).
- 9 **III.10.L.16.b.ix** The Permittees will not transfer waste into the analytical laboratory tank systems in
10 excess of the maximum capacity of the tanks as listed in [Table III.10.E.D.](#)
- 11 **III.10.L.16.b.x** The Permittees will comply with the requirements of Chapter 4H, Analytical
12 Laboratory, in response to spills or leaks from tank systems at the Analytical
13 Laboratory [[WAC 173-303-640\(5\)\(c\)](#), [WAC 173-303-640\(7\)](#)].
- 14 **III.10.L.16.b.xi** The Permittees will comply with the requirements of [WAC 173-303-640\(9\)](#)
15 incorporated by reference. [[WAC 173-303-640\(9\)](#)]
- 16 **III.10.L.16.b.xii** The Permittees will comply with the requirements of [WAC 173-303-640\(10\)](#),
17 incorporated by reference.
- 18 **III.10.M EMF MISCELLANEOUS UNIT SYSTEMS**
- 19 Unless otherwise noted in [Table III.10.M.A.](#), for purposes of Permit Section III.10.M.,
20 where reference is made to [WAC 173-303-640](#), the following substitutions apply:
21 substitute the terms "EMF Miscellaneous Unit System(s)" for "tank system(s),"
22 "miscellaneous unit(s)" for "tank(s)," "equipment" for "ancillary equipment," and
23 "miscellaneous unit(s) or equipment of a EMF Miscellaneous Unit System" for
24 "component(s)" in accordance with [WAC 173-303-680](#). Miscellaneous unit systems,
25 exempt from the [WAC-173-303-640](#) requirements in Permit Section III.10.M are noted
26 as exempt in [Table III.10.M.A.](#)
- 27 **III.10.M.1 Waste and Storage Limits**
- 28 **III.10.M.1.a** The Permittees may process, in the EMF Miscellaneous Unit Systems listed in Permit
29 [Table III.10.M.A.](#), as approved/modified pursuant to Permit Condition [III.10.M.9](#), all
30 dangerous and mixed waste listed in the Part A Forms, Operating Unit Group 10, Chapter
31 1 of this Permit, and in accordance with in the WAP, Operating Unit Group 10, Chapter
32 3/Chapter 3A of this Permit, as approved pursuant to Permit Condition [III.10.C.3](#). Total
33 EMF Miscellaneous Unit dangerous and mixed waste storage at the Facility will not
34 exceed the limits specified in Permit [Table III.10.M.A.](#)
- 35 **III.10.M.1.b** The Permittees may process dangerous and mixed waste only in approved EMF
36 Miscellaneous Unit Systems listed in Permit [Table III.10.M.A.](#) in accordance with Permit
37 Section [III.10.M](#) and in accordance with Operating Unit Group 10, Chapters 1.0 and 4.0
38 of this Permit, and Operating Unit Group 10, Appendices 13.1 through 13.14 of this
39 Permit, as approved pursuant to Permit Conditions [III.10.M.9.b.](#) through [e.](#) The
40 Permittees will limit the total volume of wastes to quantities specified for the individual
41 miscellaneous units listed in Permit [Table III.10.M.A.](#)
- 42 **III.10.M.1.c** RESERVED
- 43 **III.10.M.1.d** The Permittees will ensure all certifications required by specialists (e.g., independent;
44 qualified; registered professional engineer; independent corrosion expert; independent;

1 qualified installation inspector; etc.) use the following statement or equivalent pursuant to
2 Permit Condition [III.10.C.10](#):

3 "I, (Insert Name) have (choose one or more of the following: overseen, supervised,
4 reviewed, and/or certified) a portion of the design or installation of a new miscellaneous
5 unit system or component located at (address), and owned/operated by (name(s)). My
6 duties were: (e.g., installation inspector, testing for tightness, etc.), for the following
7 miscellaneous unit system components (e.g., the venting piping, etc.), as required by the
8 Dangerous Waste Regulations, namely, [WAC 173-303-640\(3\)](#) (applicable paragraphs
9 (i.e., (a) through (g)) in accordance with [WAC 173-303-680](#)).

10 "I certify under penalty of law that I have personally examined and am familiar with the
11 information submitted in this document and all attachments and that, based on my inquiry
12 of those individuals immediately responsible for obtaining the information, I believe that
13 the information is true, accurate, and complete. I am aware that there are significant
14 penalties for submitting false information, including the possibility of fine and
15 imprisonment."

16 **III.10.M.1.e** In all future narrative permit submittals, the Permittees will include Miscellaneous Unit
17 System names with the unit designation (e.g., Evaporator Separator Vessel; DEP-EVAP-
18 00001).

19 **III.10.M.2** **Miscellaneous Unit Systems Design and Construction** [[WAC 173-303-640](#),
20 in accordance with [WAC 173-303-680\(2\)](#) and [WAC 173-303-340](#)].

21 **III.10.M.2.a** The Permittees will construct the EMF Miscellaneous Unit Systems identified in Permit
22 Table [III.10.M.A](#), as specified in Operating Unit Group 10, Appendices 13.1 through
23 13.14 of this Permit, as approved pursuant to Permit Conditions [III.10.M.9.b.](#),
24 [III.10.M.9.c.](#), and [III.10.M.9.d](#).

25 **III.10.M.2.b** The Permittees will construct secondary containment systems for the EMF Miscellaneous
26 Unit Systems identified in Permit Tables [III.10.M.A](#), as specified in Operating Unit
27 Group 10, Appendices 13.2, 13.4 through 13.14 of this Permit, as approved pursuant to
28 Permit Conditions [III.10.M.9.b.](#), [III.10.M.9.c.](#), and [III.10.M.9.d](#).

29 **III.10.M.2.c** Modifications to approved design, plans, and specifications in Operating Unit Group 10
30 of this Permit for the EMF Miscellaneous Unit Systems will be allowed only in
31 accordance with Permit Conditions [III.10.C.2.e](#) and [f](#), or [III.10.C.2.g](#), [III.10.C.9.d](#), [e](#),
32 and [h](#).

33 **III.10.M.3** **Miscellaneous Unit System Installation and Certification** [[WAC 173-303-640](#),
34 in accordance with [WAC 173-303-680\(2\)](#) and [\(3\)](#), and [WAC 173-303-340](#)].

35 **III.10.M.3.a** The Permittees must ensure that proper handling procedures are adhered to in order to
36 prevent damage to EMF Miscellaneous Unit Systems during installation. Prior to
37 covering, enclosing, or placing a new EMF Miscellaneous Unit System(s) or
38 component(s) in use, an independent, qualified, installation inspector or an independent,
39 qualified, registered professional engineer, either of whom is trained and experienced in