

400 AREA WASTE MANAGEMENT UNIT 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 a “**Last Modification Date**” which represents the last date the portion of the unit has been modified. 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.

Last modification to 400 Area Waste Management Unit **September 26, 2022**

Addenda	Last Modification Date	Modification Number
Unit-Specific Conditions	01/27/2021	PCN-400WMU-2020-01 (8C.2021.Q1)
A. Part A Form	01/27/2021	PCN-400WMU-2020-01 (8C.2021.Q1)
B. Waste Analysis Plan	06/30/2012	
C. Process Information	12/31/2012	
D. Reserved		
E. Procedures to Prevent Hazards	08/25/2016	8C.2016.Q2
F. Preparedness & Prevention	09/30/2012	
G. Personnel Training	06/30/2013	
H. Closure Plan	06/30/2009	
I. Inspection Requirements	09/5/2012	
J. Contingency Plan	09/26/2022	PCN-400WMU-2022-02 (8C.2022.Q3)

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**400 AREA WASTE MANAGEMENT UNIT
PART III, OPERATING UNIT GROUP 16
UNIT-SPECIFIC PERMIT CONDITIONS**

CHANGE CONTROL LOG

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Modification History Table

Modification Date	Modification Number
01/27/2021	PCN-400WMU-2020-01 (8C.2021.Q1)
06/24/2020	8C.2020.5F
05/23/2019	PCN-400WMU-2019-01 (8C.2019.Q2)
11/8/2018	PCN-400WMU-2018-01 (8C.2018.Q4)
08/25/2016	8C.2016.Q2

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**400 AREA WASTE MANAGEMENT UNIT
PART III, OPERATING UNIT GROUP 16
UNIT-SPECIFIC PERMIT CONDITIONS**

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2 **PART III, OPERATING UNIT GROUP 16, UNIT-SPECIFIC PERMIT CONDITIONS**
3 **400 AREA WASTE MANAGEMENT UNIT**
4

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6 **UNIT DESCRIPTION**

7 The 400 Area Waste Management Unit (WMU) is in the Property Protected Area (PPA) at the Fast Flux
8 Test Facility (FFTF), in Hanford's 400 Area. The 400 Area WMU consists of two container storage
9 units:

- 10 • Fuel Storage Facility (FSF, Building 403). The FSF is a large steel-frame, metal-sided, high bay
11 building. Its dimensions are 34 x 27 x 12 meters (112 x 90 x 40 feet). The container storage unit
12 is on the ground-level floor. In it are two large steel boxes that store sodium-contaminated core
13 component pots (CCPs). The Permittees do not plan to store more mixed waste than is currently
14 stored in the facility; however, the FSF is physically capable of storing additional mixed waste.
15 They will store any additional wastes at the 400 Area WMU in the Interim Storage Area.
- 16 • Interim Storage Area, 4718 (ISA). The ISA consists of 156 x 247 meters (513 x 247 feet) totally
17 fenced area. This area is for aboveground dry cask storage of spent fuel. A concrete pad in the
18 ISA, which measures 27 x 37 meters (90 x 120 feet), was used for dry cask storage, but will not
19 necessarily be used for mixed waste management. The rest of the ISA surface is gravel. The ISA
20 is generally flat. However, it is graded to drain in accordance with the general drainage plan for
21 the FFTF PPA. Inside the ISA, there is also one building along the west fence line, and open on
22 the side. This building, Building 432A, is not authorized for mixed waste management.

23 The scale map in Addendum A shows the location of each storage unit. The only mixed waste stored in
24 these two container storage units is elemental sodium, and sodium potassium (D001, D003, and WSC2),
25 sodium hydroxide (D002), and potassium hydroxide (D002) and debris (e.g., piping, equipment, and
26 components) contaminated with elemental sodium, sodium potassium, sodium hydroxide, and potassium
27 hydroxide. The 400 Area WMU will not store, treat, or dispose of bulk metallic sodium or bulk sodium
28 hydroxide.

29 **LIST OF ADDENDA SPECIFIC TO OPERATING UNIT GROUP 16**

- 30 Addendum A Part A Form, dated January 27, 2021
31 Addendum B Waste Analysis Plan, dated June 30, 2012
32 Addendum C Process Information, dated December 31, 2012
33 Addendum D Groundwater Monitoring – Reserved
34 Addendum E Procedures to Prevent Hazards, dated June 30, 2016
35 Addendum F Preparedness and Prevention, dated September 30, 2012
36 Addendum G Personnel Training, dated June 30, 2013
37 Addendum H Closure Plan, dated June 30, 2009
38 Addendum I Inspection Requirements, dated September 5, 2012
39 Addendum J Contingency Plan, dated June 24, 2020

1 **DEFINITIONS**

2 The term “**CCP**” or **Core Component Pot** means one of 109 cylindrical containers, each containing
3 3.75 gallons of un-reacted sodium totaling 405 gallons, currently stored as mixed waste in the FFTF FSF.
4 The CCPs were previously filled with sodium and used in the FFTF Interim Decay Storage Vessel to
5 store spent FFTF Driver Fuel Assemblies under inert gas.

6 **ACRONYMS**

7 FFTF Fast Flux Test Facility
8 CCP Core Component Pot
9 PPA Property Protected Area
10 ISA Interim Storage Area
11 FSF Fuel Storage Facility
12 WMU Waste Management Unit

13 **III.16.A COMPLIANCE WITH UNIT-SPECIFIC PERMIT CONDITIONS**

14 **III.16.A.1** The Permittees will comply with all conditions in this Chapter and its addenda with
15 respect to dangerous waste management and dangerous waste management units in the
16 400 Area WMU, in addition to conditions in Permit Parts I and II.

17 **III.16.B GENERAL WASTE MANAGEMENT**

18 **III.16.B.1** The Permittees are authorized to accept, according to the waste acceptance procedure
19 documented in Addendum B, Section B.2, mixed debris generated from demolition and
20 decommissioning of the FFTF reactor system containing or contaminated with residual
21 elemental sodium and sodium hydroxide. The Permittee will store these wastes in the
22 ISA.

23 **III.16.B.2** The Permittees are authorized to store core component pots generated prior to the
24 effective date of this permit in two large metal boxes in the 400 Area WMU, FSF.

25 **III.16.B.3** The Permittees are authorized store mixed waste in the ISA up to a maximum capacity of
26 19,000 gallons.

27 **III.16.B.4** The Permittees will maintain the physical structure of dangerous waste management units
28 in the 400 Area WMU as documented in the Unit Description above and Addendum C,
29 Figures C.1 and C.2.

30 **III.16.B.5** The Permittees will maintain appropriate administrative controls and work practices to
31 ensure that only wastes specified in Permit Condition III.16.B.1, are received by the ISA
32 for storage, and that no co-mingling or cross-contamination of the waste stream specified
33 in Permit Condition III.16.B.1 with any other waste stream may occur.

34 **III.16.C WASTE ANALYSIS**

35 **III.16.C.1** The Permittees will have an accurate and complete waste profile for the waste stream
36 identified in Permit Condition III.16.B.1. This waste profile will be signed and dated
37 upon approval by the 400 Area WMU authorized representative. [Washington
38 Administrative Code (WAC) 173-303-380(1)(a)]

39 **III.16.C.2** The Permittees will make a copy of the waste profile required by Permit
40 Condition III.16.C.1 available upon request. [WAC 173-303-815(2)(b)(ii)]

- 1 **III.16.D RECORDKEEPING AND REPORTING**
- 2 **III.16.D.1** The Permittees will place the following into the Hanford Facility Operating Record,
3 400 Area WMU File required by Permit Condition II.I.1. [WAC 173-303-380]
- 4 **III.16.D.2** Records required by WAC 173-303-380(1)(o), incorporated by reference.
- 5 **III.16.E SECURITY**
- 6 **III.16.E.1** The Permittees will post warning signs at all entrances to the FSF and the ISA specified
7 in Addendum E, Section E.1.1. [WAC 173-303-310(2)(a)]
- 8 **III.16.F PREPAREDNESS AND PREVENTION**
- 9 **III.16.F.1** The Permittees will comply with the Addendum F, “Preparedness and Prevention,”
10 requirements specific to the 400 Area WMU. [WAC 173-303-340]
- 11 **III.16.G CONTINGENCY PLAN**
- 12 **III.16.G.1** The Permittees will comply with Addendum J, “Contingency Plan,” in addition to the
13 requirements of Permit Condition II.A when applicable. [WAC 173-303-350]
- 14 **III.16.H INSPECTIONS**
- 15 **III.16.H.1** The Permittees will perform inspections of the 400 Area WMU according to
16 Addendum I, “Inspection Plan,” for inspecting all monitoring equipment, safety and
17 emergency equipment, security devices, and operating and structural equipment that help
18 prevent, detect, or respond to hazards to the public health or the environment pursuant to
19 the requirements of WAC 173-303-320. [WAC 173-303-320(2)]
- 20 **III.16.I TRAINING PLAN**
- 21 **III.16.I.1** The Permittees will include Addendum G unit-specific training requirements in the
22 written training plan required by Permit Condition II.C. [WAC 173-303-330]
- 23 **III.16.J OTHER GENERAL REQUIREMENTS**
- 24 **III.16.J.1** The Permittees will comply with the requirements of WAC 173-303-395(1)(a)-(c),
25 incorporated by reference, for prevention of reaction of ignitable, reactive, or
26 incompatible wastes.
- 27 **III.16.J.2 Land Disposal Restriction Requirements**
- 28 **III.16.J.2.a** The Permittees will ensure a schedule of compliance and any applicable associated work
29 requirements are included in the land disposal restrictions report required by the *Hanford*
30 *Federal Facility Agreement and Consent Order* (HFFACO) Milestone M-26,
31 incorporated by reference by Permit Condition II.O for treatment and/or acquisition of
32 treatment capacity for wastes which are or are expected to be stored in the 400 Area
33 WMU container storage units.
- 34 **III.16.K CLOSURE**
- 35 **III.16.K.1** The Permittees will close the 400 Area WMU Container Storage Units in accordance
36 with Addendum H, “Closure Plan.” [WAC 173-303-610(4)]
- 37 **III.16.L POST CLOSURE**
- 38 Reserved
- 39 **III.16.M CRITICAL SYSTEMS**
- 40 Reserved

