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OPERATING UNIT GROUP 16 PERMIT CONDITIONS
400 AREA WASTE MANAGEMENT UNIT

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1 **OPERATING UNIT GROUP 16 PERMIT CONDITIONS**

2 **400 AREA WASTE MANAGEMENT UNIT**

3 **UNIT DESCRIPTION**

4 The 400 Area Waste Management Unit (WMU) is in the property protection area at the Fast Flux Test
5 Facility (FFTF), in Hanford's 400 Area. The 400 Area WMU consists of two container storage units:

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

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

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

- 27 Addendum A Part A Form, dated October 1, 2008
- 28 Addendum B Waste Analysis Plan
- 29 Addendum C Process Information
- 30 Addendum D Groundwater Monitoring (Reserved)
- 31 Addendum E Security
- 32 Addendum F Preparedness and Prevention
- 33 Addendum G Personnel Training
- 34 Addendum H Closure
- 35 Addendum I Inspection Plan
- 36 Addendum J Contingency Plan

37 **DEFINITIONS**

38 The term "**CCP**" or **Core Component Pot** means one of 109 cylindrical containers, each containing
39 3.75 gallons of un-reacted sodium totaling 405 gallons, currently stored as mixed waste in the FFTF Fuel
40 Storage Facility. The CCPs were previously filled with sodium and used in the FFTF Interim Decay
41 Storage Vessel to store spent FFTF Driver Fuel Assemblies under inert gas.

1 **ACRONYMS**

- 2 CCP Core Component Pot
3 FSF Fuel Storage Facility
4 ISA Interim Storage Area
5 PPA Property Protected Area
6 WMU Waste Management Unit
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- 1 **III.16.A COMPLIANCE WITH UNIT-SPECIFIC PERMIT CONDITIONS**
- 2 **III.16.A.1** The Permittees will comply with all conditions in this Chapter and its addenda with
3 respect to dangerous waste management and dangerous waste management units in the
4 400 Area WMU, in addition to conditions in Permit Parts I and II.
- 5 **III.16.B GENERAL WASTE MANAGEMENT**
- 6 **III.16.B.1** The Permittees are authorized to accept, according to the waste acceptance procedure
7 documented in Addendum B, Section B.2, mixed debris generated from demolition and
8 decommissioning of the Fast Flux Test Facility reactor system containing or
9 contaminated with residual elemental sodium, sodium hydroxide, and NaK. The
10 Permittees will store these wastes in the ISA.
- 11 **III.16.B.2** The Permittees are authorized to store core component pots generated prior to the
12 effective date of this permit in two large metal boxes in the 400 Area WMU, FSF.
- 13 **III.16.B.3** The Permittees are authorized to store mixed waste in the ISA up to a maximum capacity
14 of 19,000 gallons.
- 15 **III.16.B.4** The Permittees will maintain the physical structure of dangerous waste management units
16 in the 400 Area WMU as documented in the Unit Description above and Addendum C,
17 Figures C.1 and C.2.
- 18 **III.16.B.5** The Permittees will ensure that only wastes specified in Permit Condition III.16.B.1, are
19 received by the ISA for storage, and that no co-mingling or cross-contamination of the
20 waste stream specified in Permit Condition III.16.B.1 with any other waste stream may
21 occur.
- 22 **III.16.B.6** The Permittees will comply with the requirements of [WAC 173-303-395\(1\)\(a\)-\(c\)](#),
23 incorporated by reference, for prevention of reaction of ignitable, reactive, or
24 incompatible wastes.
- 25 **III.16.B.7** The Permittees will comply with any schedule of compliance and any applicable
26 associated work requirements included in the LDR report required by and enforceable
27 under HFFACO Milestone M-26, for the treatment and/or acquisition of treatment
28 capacity for and/or the continued storage of waste in the Operating Unit Group 16 fuel
29 storage facility and interim storage area. Any such schedules and requirements are by
30 this reference incorporated under the terms of Permit Condition I.A.4, and apply under
31 this Permit as if they were fully set forth herein.
- 32 **III.16.C WASTE ANALYSIS**
- 33 **III.16.C.1** The Permittees will have accurate and complete waste profiles for the waste streams
34 identified in Permit Condition III.16.B.1. This waste profile will be signed and dated
35 upon approval by the 400 Area WMU authorized representative.
36 [\[WAC 173-303-380\(1\)\(a\)\]](#)
- 37 **III.16.D RECORDKEEPING AND REPORTING**
- 38 **III.16.D.1** The Permittees will place the following into the Hanford Facility Operating Record,
39 400 Area WMU File required by Permit Condition II.I.2: [\[WAC 173-303-380\]](#)
- 40 **III.16.D.1.a** Records required by [WAC 173-303-380\(1\)\(o\)](#), incorporated by reference;
- 41 **III.16.D.1.b** Waste profiles required by Permit Condition III.16.C.1
- 42 **III.16.D.1.c** Waste storage location and quantity of wastes managed at the ISA and FSF. This
43 information will include the measured or calculated quantity of sodium or NaK in each

waste container or unique component managed in the FSF or the ISA.

[\[WAC 173-303-380\(1\)\(b\)\]](#)

III.16.E SECURITY

III.16.E.1 The Permittees will implement and maintain the practices specific to the 400 Area WMU as described in Addendum E, Section E.1.1, Security [\[WAC 173-303-310\(2\)\(a\)\]](#)

III.16.F PREPAREDNESS AND PREVENTION

III.16.F.1 The Permittees will implement the practices specific to the 400 Area WMU as described in Addendum F, Preparedness and Prevention. [\[WAC 173-303-340\]](#)

III.16.G CONTINGENCY PLAN AND EMERGENCY RESPONSE

III.16.G.1 The Permittees will comply with Addendum J, Contingency Plan, in addition to the requirements of Permit Condition II.A when applicable. [\[WAC 173-303-350\]](#)

III.16.H INSPECTIONS

III.16.H.1 The Permittees will implement the practices specific to the 400 Area WMU as described in Addendum I, Inspection Plan, pursuant to the requirements of [WAC 173-303-320](#), incorporated by reference.

III.16.I TRAINING PLAN

III.16.I.1 The Permittees will, in a written training plan, include training requirements specific to the 400 Area WMU as specified in Addendum G, Personnel Training, and as required by Permit Condition II.C. [\[WAC 173-303-330\]](#)

III.16.J OTHER GENERAL REQUIREMENTS

Reserved

III.16.K CLOSURE

III.16.K.1 The Permittees will implement the practices as described in Addendum H, Closure and condition II.J, when closing the 400 Area WMU Container Storage Units. [\[WAC 173-303-610\(4\)\]](#)

III.16.L POST CLOSURE

Reserved

III.16.M CRITICAL SYSTEMS

Reserved

III.16.N RESERVED

III.16.O CONTAINERS

III.16.O.1 The Permittees will implement the practices as described in Addendum C, Process Information, Section C.1.2 Container Management Practices, for the 400 Area WMU Container Storage Units. [\[WAC 173-303-630\]](#)

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