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FACT SHEET
PART III, OPERATING UNIT GROUP 7, WASTE RECEIVING AND PROCESSING
FACILITY

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1 **FACT SHEET**

2 **WASTE RECEIVING AND PROCESSING FACILITY**

3 **UNIT DESCRIPTION**

4 The Waste Receiving and Processing Facility (WRAP) Operating Unit Group is located in Hanford's 200
5 West Area. It began operating in 1997. At the WRAP authorized dangerous waste management units, the
6 Permittees store and treat dangerous waste and mixed waste from both Hanford and offsite.

7 In the original permit application (Part A form) WRAP was a component of the Central Waste Complex
8 (CWC). In the mid-1990s, the Permittees submitted a separate Part A form for WRAP. Buildings
9 2404-WA, 2404-WB, and 2404-WC remained within the CWC boundary. In 2003, the Permittees
10 removed Buildings 2404-WB and 2404-WC from the CWC and added them to the WRAP. In this permit
11 reissue, Building 2404-WA will transfer from the CWC to the WRAP. All these changes are identified in
12 the Part A forms for the specific units.

13 The following wastes may be managed at the WRAP Operating Unit Group:

- 14 • Dangerous or mixed waste that is generated from processes at the Hanford site.
- 15 • Waste that is specifically identified in Section II, paragraph 8 of the Settlement Agreement re:
16 Washington versus Bodman, Civil No. 2:30-cv-05018-AAM, January 6, 2006.

17 No other wastes may be managed at WRAP unless authorized via a permit modification decision pursuant
18 to Condition I.C.3. Requests for Permit modifications must be accompanied by an evaluation adequate
19 for Ecology to comply with SEPA.

20 Much of the waste WRAP Operating Unit Group stores and treats is mixed low-level waste (MLLW) or
21 mixed transuranic (TRUM).

22 The WRAP Operating Unit Group has the following dangerous waste management units:

- 23 • 2336W Building (Process Area) (Storage, and Treatment within the gloveboxes).
- 24 • 2336W Building (NDE/NDA Area) (Storage).
- 25 • 2336W Building (Shipping and Receiving Area) (Storage).
- 26 • 2336W Building Room 152 (Storage).
- 27 • 2404-WA, Waste Storage Building (Storage and Treatment).
- 28 • 2404-WB, Waste Storage Building (Storage and Treatment).
- 29 • 2404-WC, Waste Storage Building (Storage and Treatment).

30 WRAP has the capability to treat waste through:

- 31 • Deactivation.
- 32 • Solidification or absorption of free liquids.
- 33 • Neutralization of corrosives.
- 34 • Microencapsulation.
- 35 • Macroencapsulation.
- 36 • Volume reduction of waste.
- 37 • Reaction of reactive waste.
- 38 • Repackaging of waste.

1 The following activities may occur within the 2336W Process Area gloveboxes, the following waste
2 management activities may occur:

- 3 • Visually examining waste, then separating and sorting wastes.
- 4 • Treating or managing prohibited waste components.
- 5 • Repackaging waste to meet shipping and/or waste acceptance criteria for the onsite receiving
6 TSD unit or offsite facility.
- 7 • Overpacking of dangerous and/or mixed waste.

8 Waste leaving the 2336W Building Process Area is typically ready to be transferred/shipped to a
9 receiving treatment, storage, and disposal unit or offsite facility. However, the waste may be stored at
10 WRAP for a period of time prior to transfer/shipping out of WRAP

11 The following is a description of the WRAP Dangerous Waste Management Units (DWMUs) included in
12 the Operable Unit:

13 **2336W Building**

14 The 2336W Building has four dangerous waste management units:

- 15 • 2336W Building Process Area.
- 16 • 2336W Building NDE/NDA Area.
- 17 • 2336W Building Shipping and Receiving Area.
- 18 • 2336W Building Room 152.

19 **2336W Building Process Area**

20 This dangerous waste management unit is a 650 square meters and contains four gloveboxes and a lid
21 removal station. The Process Area gloveboxes are designed for opening, sorting, and sampling to
22 characterize or confirm the contents of containers, and treating mixed waste. Waste entering the WRAP
23 Process Area dangerous waste management unit will be sorted in the gloveboxes. Field screening or
24 sampling will be conducted within the gloveboxes to perform verification or assist in waste
25 characterization.

26 Waste treatment activities within the 2336W Building Process Area include:

- 27 • Deactivation, solidification or absorption of liquids.
- 28 • Neutralization of corrosives.
- 29 • Microencapsulation.
- 30 • Macroencapsulation.
- 31 • Absorption to accomplish deactivation of liquids and solids.
- 32 • Volume reduction of waste
- 33 • Deactivation of reactive waste.
- 34 • Repackaging of waste.
- 35 • Venting and draining of aerosol cans

36 **2336W NDE/ NDA Area**

37 The 2336W NDE/NDA Area provides for equipment and container storage. The NDA equipment will be
38 used to determine the Atomic Energy Act regulated material content of each waste container. The NDE
39 will be used to identify waste items to indicate the physical appearance of the waste, identify if liquids are
40 present, and/or identify if other suspect nonconformance waste forms are present to support waste
41 characterization and processing.

1 **2336W Shipping and Receiving Area**

2 This area occupies the southeast corner of the building and supports storage, container handling, and
3 transport container loading operations

4 **2336W Building Room 152**

5 This room is located between the Shipping and Receiving Area and the extra loading dock and storage
6 area. No treatment is performed in Room 152.

7 **2404 Waste Storage Buildings**

8 The 2404-W Waste Storage Buildings (2404-WA, 2404-WB, and 2404-WC) are pre-engineered
9 buildings. The Permittees store and treat waste in these buildings.

10 Waste treatment activities within the 2404 Waste Storage Buildings include:

- 11 • Absorption of free liquids.
- 12 • Absorption to accomplish deactivation.
- 13 • Neutralization of corrosive materials.

14 **TYPE AND QUANTITY OF WASTE**

15 The WRAP Operating Unit Group stores and treats a variety of dangerous and mixed wastes (see
16 Addendum A, Part A Form). The total process design capacity for treatment is 12,900 liters per day. The
17 storage volume for each structure is shown in Table 1.

Table 1 Storage Volume for Each Storage Location

Structure	Maximum total volume (liters)
2336 W Building - Shipping and Receiving Area	129,000
2336W Building NDE/NDA	84,000
2336W Building Process Area	16,000
2336W Building Room 152	1,300
2404-WA	1,600,000
2404-WB	1,600,000
2404-WC	1,600,000
WRAP Maximum Total Volume	5,030,300

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1 **BASIS FOR PERMIT CONDITIONS**

2 This permit is intended to protect human health and the environment while ensuring proper management
3 of waste at WRAP. The permit addenda are incorporated into this permit and are enforceable by
4 reference. The conditions and addenda are derived from the permit application.

5 Ecology has reviewed the permit application for WRAP to ensure the unit meets dangerous waste facility
6 standards. The permit includes requirements for complying with environmental standards and
7 maintaining and modifying the permit. The permit conditions address specifics such as personnel training,
8 adequate staffing, process controls and inspection requirements.

9 **GENERAL WASTE MANAGEMENT REQUIREMENTS**

10 The Permittees are allowed to accept waste in the WRAP dangerous waste management units only if the
11 waste satisfies the WRAP waste acceptance criteria and permit conditions. The Permittees may store and
12 treat wastes only in the authorized areas. The Permittees will comply with Addendum B for waste
13 analysis for all dangerous and mixed waste they manage at the WRAP dangerous waste management
14 units. [[WAC 173-303-300](#)]

15 **WASTE ANALYSIS REQUIREMENTS**

16 Condition III.7.C.1 requires the Permittees to comply with all the requirements in Addendum B, Waste
17 Analysis Plan (WAP) for sampling and analysis of all dangerous and mixed waste managed within the
18 WRAP dangerous waste management units. [[WAC 173-303-300\(5\)](#)]

19 Large quantities of waste retrieved from the burial grounds in support of the Tri-Party Agreement (TPA)
20 Milestone M -91 are defined as debris. Condition III.7.C.2 requires the Permittees to provide Ecology
21 within 14 days of the effective date of this permit a modification request to address the following
22 conditions:

- 23 • Condition III.7.C.2.a, requires the Permittees to provide Ecology, within 14 days of the effective
24 date of this permit, a modification request that provides test procedures and an evaluation process
25 to demonstrate that wastes received at the authorized dangerous waste management units do not
26 contain free liquids for individual containers prior to acceptance to any of the CWC dangerous
27 waste management units. [WAC 173-303-806\(4\)\(b\)\(ii\)\(A\)](#).
- 28 • Condition III.7.C.2.b requires the Permittees to provide, within 14 days of the effective date of
29 this permit, a schedule to work with Ecology staff to develop a performance criterion for
30 determining the testing frequency of the presence or absence of free liquids [WAC 173-303-](#)
31 [806\(4\)\(b\)\(ii\)\(A\)](#)
- 32 • Condition III.7.C.2.c requires the Permittees to provide, within 14 days of the effective date of
33 this permit, a revision to Addendum B to describe the processes for the determination of debris
34 per the [WAC 173-303-040](#) definition.

35 Ecology recognizes that the Waste Retrieval Project (WRP) waste that the Permittees retrieve and plan to
36 manage at WRAP may be “overdesignated” or incompletely characterized. WRAP is specifically
37 designed to examine and repackage waste, complete or verify waste designation or characterization
38 requirements, and identify, remove, and treat WIPP prohibited items.

39 The WRAP WAP allows the Permittees to determine the presence of free liquids using nondestructive
40 examination (NDE) by trained operators in lieu of the paint filter test. This allows the Permittees to
41 visually identify the presence of free liquids in a container.

42 The WAP defines the discrepant container management program. A discrepant container is one with
43 issues about the contents of packaging. The WAP requires that discrepant containers with unknown free
44 liquids be stored with separate secondary containment to comply with [WAC 173-303-630\(9\)\(a\)](#) except for
45 containers going to an offsite TSD facility.

1 Containers don't need secondary containment if the containers do not exceed the free liquid quantities
2 specified in the WAP. The Permittees must visually inspect daily all containers managed within the
3 discrepant container management program.

4 The WRAP stores uncharacterized WRP waste in the WRAP Outside Storage Area A. The maximum
5 allowable time for WRP (retrieved) uncharacterized waste to be stored in Outside Storage Area A is 90
6 days, as required by TPA Milestone M-091-40. The Permittees must visually inspect all waste in the
7 WRAP Outside Storage Area A daily.

8 **RECORDKEEPING AND REPORTING**

9 The basis of Condition III.7.D is [WAC 173-303-380](#) and [WAC 173-303-810](#)(16), for those requirements
10 not included elsewhere in this permit.

11 **SECURITY**

12 The WRAP is within Hanford's secured area. Access to the operating area of the facility is subject to the
13 general security provision of Condition II.L. In addition, Condition III.7.E.1 and Addendum E define
14 security provisions, access controls, and signage specific to the WRAP. These requirements fully satisfy
15 [WAC 173-303-310](#).

16 **PREPAREDNESS AND PREVENTION**

17 Condition III.7.F.1 and Addendum F contain the WRAP's preparedness and prevention requirements.
18 These requirements address internal and external systems used to communicate with WRAP personnel
19 and emergency responders (Hanford Fire Department, the hazardous materials response team, or Hanford
20 Patrol) in the case of fire or other emergency.

21 **CONTINGENCY PLAN**

22 Condition III.7.G.1 requires the Permittees to comply with the Contingency Plan in Addendum J and
23 Condition II.A when applicable.

24 **INSPECTIONS**

25 Condition III.7.H.1 has general inspection requirements based on [WAC 173-303-320](#) applicable to
26 WRAP. The Permittees must comply with the Inspection Plan in Addendum I. The plan includes all
27 safety, monitoring equipment, security and transportation equipment not addressed in Condition II.X.
28 This set of conditions addresses responses to problems identified, and related documentation and
29 recordkeeping.

30 **TRAINING**

31 Condition III.7.I.1 requires the Permittees to put the training requirements described in Addendum G of
32 this permit into a written training plan required by Condition II.C [[WAC 173-303-330](#)(2)(a) and (b)].
33 This plan will be specific to the positions and job descriptions associated with WRAP.

34 **OTHER GENERAL REQUIREMENTS**

35 Condition III.7.J.1 has requirements under [WAC 173-303-395](#)(1) for managing ignitable, reactive, or
36 incompatible waste. It has conditions under [WAC 173-303-395](#)(2) for compliance with other
37 environmental protection laws and regulations. The requirements for inspections of ignitable and reactive
38 wastes are in the WRAP inspection requirements. Condition III.7.J.2 has requirements for containers
39 with incompatible waste storage in accordance with [WAC 173-303-630](#)(9)(c).

1 **CLOSURE**

2 Condition III.7.K.1 requires the Permittees to close WRAP dangerous waste management in accordance
3 with Addendum H, Closure Plan. [[WAC 173-303-610\(3\)](#)]

4 **CONTAINER MANAGEMENT STANDARDS**

5 Conditions III.7.O provides general authorization to maintain and store waste containers in such a manner
6 that maintains the containers' integrity.

7 **REQUESTED VARIANCES OR ALTERNATIVES**

8 There are no requested variances or alternatives for WRAP.

9 **STATE ENVIRONMENTAL POLICY ACT (SEPA)**

10 The SEPA determination for WRAP is in the Hanford-Wide Permit Fact Sheet.

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