



Department of Energy

Richland Operations Office
P.O. Box 550
Richland, Washington 99352

0039771

DEC 19 1994

95-PCA-092

Mr. Steve M. Alexander
Section Manager
Perimeter Area
Nuclear Waste Program
State of Washington
Department of Ecology
1315 West Fourth Avenue
Kennewick, Washington 99336

Dear Mr. Alexander:

NOTICE OF INTENT FOR EXPANSION UNDER INTERIM STATUS FOR THE HANFORD FACILITY (WA7890008967)

In accordance with Washington Administrative Code (WAC) 173-303-281, the U.S. Department of Energy, Richland Operations Office (RL) and Westinghouse Hanford Company (WHC) are submitting the enclosed Notice of Intent (NOI) for Expansion Under Interim Status for the Hanford Facility. The Hanford Facility will be expanded to include a Sodium Storage Facility (SSF) and a Sodium Reaction Facility (SRF) for the treatment and storage of sodium coolant that will be drained from the Fast Flux Test Facility (FFTF). The SSF and SRF will be located in the 400 Area of the Hanford Facility, southwest of the FFTF. The specific information required under WAC 173-303-281 for expansion under interim status is provided in the NOI.

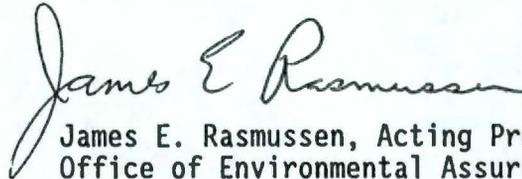


Mr. Steve M. Alexander
95-PCA-092

-2-

Should you have any questions regarding the NOI, please contact
Mr. C. E. Clark of RL on (509) 376-9333 or Mr. R. C. Bowman of WHC
on (509) 376-4876.

Sincerely,



James E. Rasmussen, Acting Program Manager
Office of Environmental Assurance,
Permits, and Policy
DOE Richland Operations Office

EAP:CEC



William T. Dixon, Manager
Environmental Services
Westinghouse Hanford Company

Enclosure:
Notice of Intent for Expansion
Under Interim Status

cc w/encl:
EDMC, H6-08
Administrative Record
R. Bowman, WHC
B. Burke CTUIR
D. Duncan, EPA
R. Jim, YIN
M. Jaraysi, Ecology
D. Powaukee, NPT
S. Price, WHC

cc w/o encl:
W. Dixon, WHC

**NOTICE OF INTENT
FOR EXPANSION UNDER
INTERIM STATUS**

**HANFORD FACILITY,
SODIUM STORAGE FACILITY AND
SODIUM REACTION FACILITY
RICHLAND, WASHINGTON**

**U.S. DEPARTMENT OF ENERGY,
RICHLAND OPERATIONS OFFICE**

DECEMBER 1994



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1.0 INTRODUCTION

The Washington State Department of Ecology (Ecology) *Dangerous Waste Regulations*, Washington Administrative Code (WAC) 173-303-281, require that dangerous waste facility owners and/or operators submit a Notice of Intent (NOI) before submittal of a permit application for new or expanded dangerous waste treatment, storage, and/or disposal (TSD) units on the Hanford Facility. The following information for this NOI is being filed with Ecology by the U.S. Department of Energy, Richland Operations Office (DOE-RL), the owner and operator.

This document is to serve notice of the intent to expand the Hanford Facility with tank and container storage and treatment for sodium coolant drained from the Fast Flux Test Facility (FFTF). The expansion will consist of two buildings, the Sodium Storage Facility (SSF) (greater-than-90-day tank storage) and the Sodium Reaction Facility (SRF) (tank and container storage and treatment), located in the 400 Area. The capacity to store and treat dangerous waste in tanks and containers is being expanded to ensure compliance with storage and treatment requirements and greater-than-90-day accumulation requirements of WAC 173-303 and the *Resource Conservation and Recovery Act (RCRA) of 1976*, as amended.

The following identifies the owner and operator of the Hanford Facility and the primary contact.

Owner and Operator: U.S. Department of Energy,
Richland Operations Office

Manager, Richland Operations Office: Mr. John D. Wagoner

Richland Operations Office Contact: Mr. J. E. Rasmussen

Address: U.S. Department of Energy
Richland Operations Office
Post Office Box 550
Richland, Washington 99352

Telephone: (509) 376-5441

2.0 FACILITY DESCRIPTION AND GENERAL PROVISIONS

The Hanford Facility is a single RCRA facility identified by the U.S. Environmental Protection Agency (EPA)/State Identification Number WA7890008967 that consists of over 60 TSD units conducting dangerous waste management activities. These TSD units are included in the *Hanford Facility Dangerous Waste Part A Permit Application* (DOE-RL 1988b). The Hanford Facility consists of all contiguous land, and structures, other appurtenances, and improvements on the land, used for recycling, reusing, reclaiming,

1 transferring, storing, treating, or disposing of dangerous waste, which, for
2 the purposes of the RCRA, are owned by the U.S. Government and operated by the
3 DOE-RL excluding land owned by Washington State.

4
5 The following sections provide a description of the SSF and the SRF,
6 along with other general provisions specified in WAC 173-303-281.

7 8 9 2.1 LOCATION OF PROPOSED EXPANSION

10
11 The SSF and SRF will be built in the proximity of the FFTF, in the
12 400 Area of the Hanford Facility, Benton County, Washington. Sodium coolant
13 will be transferred from the FFTF to the SSF once the coolant is no longer
14 needed for FFTF operations. The SSF will store the elemental sodium, in solid
15 form, in tanks until a decision is made in 1998 as to the final disposition of
16 the sodium. At that point, the sodium will be treated to sodium hydroxide for
17 reuse, or will be prepared for disposal.

18
19 Small-scale maps depicting the Hanford Facility and the location of the
20 SSF and SRF are provided in Figures 1 and 2. A large-scale map and a
21 topographic map, which meet the 2.54-centimeter- (1-inch-) equals-not-more-
22 than-61-meter (200-feet) requirement, are provided in Appendix A and include
23 the following:

- 24 • General Overview of Hanford Site (H-6-958)
- 25
- 26 • Topographic map showing the SSF and SRF (H-13-000258), including
27 surrounding 305 meters (1,000 feet). There are no existing or planned
28 injection or withdrawal wells in the vicinity of the SSF and SRF.
29 There are no barriers planned for drainage or flood control at the SSF
30 and SRF.
31

32 33 34 2.2 DESCRIPTION OF UNIT TO BE EXPANDED

35
36 The SSF and SRF will be located directly adjacent to the southwest corner
37 of the FFTF (Figure 2). On December 15, 1993, the U.S. Department of Energy
38 directed that the FFTF be placed in a radiologically and industrially safe
39 shutdown condition. Transition to a shutdown condition requires that the
40 sodium coolant [approximately 984,000 liters (260,000 gallons)] be removed
41 from the various systems throughout the FFTF and stored. The SSF will provide
42 storage for this sodium inventory, in solid form, under an inert cover gas
43 until the SRF is available for final disposition of the sodium.

44
45 The SSF will consist of three 302,834-liter (80,000-gallon) tanks and one
46 196,842-liter (52,000-gallon) tank, with a concrete building constructed
47 around and over the tanks to provide shielding and weather protection for the
48 tanks and installed equipment. The integrity of the tanks to be used will be
49 assessed per the applicable requirements of WAC 173-303-640. Based on the
50 conceptual design, the structure is 27 meters (90 feet) by 28 meters
51 (93 feet), and approximately 12.5 meters (41 feet) high. The walls are

1 monolithic, 0.46-meter (1.5-feet) thick cast-in-place concrete and function as
2 load-bearing walls in addition to providing necessary shielding from the mixed
3 waste sodium. The SSF will be constructed adjacent to the FFTF.
4

5 A secondary containment sump will be provided that is capable of
6 containing the contents of one of the 302,834 liter (80,000 gallon) tanks.
7 The storage tanks, piping, and heating equipment will be capable of heating
8 and maintaining the sodium at a set point temperature between 177°C (350°F)
9 and 204°C (400°F) with the lines and/or equipment empty or full of sodium. An
10 inert cover gas blanket will be maintained over the sodium at all times. Each
11 of the tanks will be capable of withstanding a full vacuum and an internal
12 pressure of 340,000 pascals (50 pounds per square inch gauge) at 204°C
13 (400°F), and will be provided with overpressure protection that will not allow
14 air backflow into the tank after release. Vented gases will be directed
15 through a high-efficiency particulate air (HEPA) filter.
16

17 The SRF will be constructed in close proximity to the SSF (Figure 2). An
18 evaluation will be completed by FFTF personnel in June 1998, in conjunction
19 with a Tank Waste Remediation System (TWRS) program evaluation [*Hanford*
20 *Federal Facility Agreement and Consent Order* (Tri-Party Agreement) Milestone
21 M-50-03] that will determine the final sodium disposition and form. Current
22 planning is that the sodium will be converted at the SRF to sodium hydroxide
23 for use by the TWRS Pretreatment Program for caustic washing of high-level
24 waste tank sludges. If this turns out to be the case, the SSF and SRF will be
25 procedurally closed. However, as a contingency, in the event that use of
26 sodium hydroxide by the TWRS Pretreatment Program is not viable (as determined
27 by the 1998 evaluation), the sodium will be converted to a stable form (e.g.,
28 sodium sulfate) for land disposal on the Hanford Facility as described in this
29 Notice of Intent.
30

31 The sodium reaction process used by Argonne National Laboratory-West in
32 Idaho currently forms the technical baseline for the SRF. The process
33 consists of injecting molten sodium metal and water into a reaction vessel
34 partially filled with 30 percent to 50 percent sodium hydroxide at about 116°C
35 (240°F). The vigorous reaction produces more sodium hydroxide and hydrogen
36 gas. The gas is swept out of the vessel by a nitrogen cover gas purge and
37 maintained at sufficiently low dilution so as not to be flammable when mixed
38 with air. If disposal of the sodium as waste is required, the sodium
39 hydroxide solution would be reacted with sulfuric acid to produce sodium
40 sulfate. The sodium sulfate would be dried and collected into containers and
41 transported to a Hanford Facility disposal site. The general process
42 flowsheet is shown in Figure 3.
43

44 The maximum amount of waste to be managed annually in the SRF is
45 approximately 984,000 liters (260,000 gallons). The building size is expected
46 to be approximately 20 meters (65 feet) by 17 meters (57 feet) by 11 meters
47 (35 feet). Detailed layout of the SRF will await the 1998 evaluation that
48 will determine the final sodium form and disposition. Modification of the
49 Part A permit application, Form 3, may be required, based on the final process
50 selected.
51

1 **2.3 COMPLIANCE WITH STATE ENVIRONMENTAL POLICY ACT**

2
3 The *State Environmental Policy Act of 1971* Environmental Checklist
4 (Revision 0) is provided as Appendix B.
5

6
7 **2.4 COMPLIANCE WITH SITING STANDARDS**

8
9 Demonstration of compliance with the siting criteria as required under
10 WAC 173-303-282(6) and (7) is addressed in the following sections.
11

12
13 **2.4.1 Criteria for Elements of the Natural Environment**

14
15 The following sections address measures in place at the SSF and SRF to
16 provide protection of the natural environment. Each element of the criteria
17 identified in WAC 173-303-282(6) is addressed.
18

19 **2.4.1.1 Earth.** This section addresses the potential for the release of mixed
20 waste into the environment because of structural damage resulting from
21 conditions of the earth at the SSF and SRF.
22

23 **2.4.1.1.1 Seismic Risk.** The design of the SSF and SRF will be in
24 accordance with the *Hanford Plant Standards*, Standard Design Criteria - 4.1
25 for seismic considerations (KEH 1993). This Plant Standard provides seismic
26 load criteria specific for the Hanford Site and is more restrictive than the
27 *Uniform Building Code*.
28

29 No active faults, or evidence of a fault that has had displacement during
30 Holocene times, have been found at the Hanford Site (DOE 1988; WHC 1991). The
31 youngest faults recognized at the Hanford Site occur on Gable Mountain,
32 approximately 40 kilometers (25 miles) northwest of the 400 Area. These
33 faults are of the Quaternary age and are considered 'capable' by the Nuclear
34 Regulatory Commission (NRC 1982).
35

36 **2.4.1.1.2 Subsidence.** The SSF and SRF are located in the 400 Area of
37 the Hanford Facility. This area of the Hanford Facility is not considered an
38 area subject to subsidence (PNL 1994).
39

40 **2.4.1.1.3 Slope or Soil Instability.** The SSF and SRF are not located in
41 an area of slope or soil instability, or in an area affected by unstable slope
42 or soil conditions (PNL 1994).
43

44 **2.4.1.2 Air.** The SSF and SRF are not incineration units. Discussion of
45 measures taken to reduce air emissions resulting from incineration is not
46 applicable.
47

48 **2.4.1.3 Water.** This section addresses the potential for contaminating water
49 of the state in the event of a release of mixed waste.
50

1 **2.4.1.3.1 Surface Water.** The following sections address considerations
2 for the protection of surface water.

3
4 **2.4.1.3.1.1 Flood, Seiche, and Tsunami Protection.** Three sources of
5 potential flooding of the area were considered: (1) the Columbia River,
6 (2) the Yakima River, and (3) storm-induced run-off in ephemeral streams
7 draining the Hanford Facility. No perennial streams occur in the 400 Area of
8 the Hanford Facility. The 400 Area is not within the 100- or 500-year
9 floodplain.

10
11 **2.4.1.3.1.2 Perennial Surface Water Bodies.** The SSF and SRF are
12 nonland-based facilities as defined in WAC 173-303-282(3)(i). The
13 WAC 173-303-282(6)(c)(i)(B)(I) requires nonland-based facilities be located at
14 least 500 feet (152 meters) from any perennial water body. The SSF and SRF
15 are over 7 kilometers (4.5 miles) from the Columbia River, the closest
16 perennial water body.

17
18 **2.4.1.3.1.3 Surface Water Supply.** The SSF and SRF are not located
19 within an area designated as a watershed or within 152 meters (500 feet) of a
20 surface water intake for domestic water.

21
22 **2.4.1.3.2 Groundwater.** The following addresses consideration for the
23 protection of groundwater. The SSF and SRF are nonland-based facilities as
24 defined by WAC 173-303-282(3)(i); therefore, compliance with the contingent
25 groundwater protection program is not required.

26
27 **2.4.1.3.2.1 Depth to Groundwater.** The SSF and SRF are located in the
28 400 Area of the Hanford Facility. The depth to groundwater in the 400 Area is
29 approximately 46 meters (150 feet).

30
31 **2.4.1.3.2.2 Sole Source Aquifer.** The SSF and SRF are not located over
32 an area designated as a 'sole source aquifer' under section 1424(e) of the
33 *Safe Drinking Water Act of 1974*.

34
35 **2.4.1.3.2.3 Groundwater Management Areas and Special Protection Areas.**
36 The proposed expansion involves the addition of tank treatment and storage
37 capacity at the SSF and SRF. The treatment and storage of waste in tanks is
38 not expected to result in an increased potential for release of mixed waste to
39 groundwater and special protection areas.

40
41 **2.4.1.3.2.4 Groundwater Intakes.** The SSF and SRF are not located within
42 152 meters (500 feet) of a groundwater intake for domestic water.

43
44 **2.4.1.4 Plants and Animals.** The proposed expansion does not result in an
45 increased potential for mixed waste to contaminate plant and animal habitat in
46 the event of a release of mixed waste. The SSF and SRF will be located over
47 152 meters (500 feet) from any of the following.

1 2.4.1.4.1 Wetlands. The SSF and SRF are not located near any wetlands.

2
3 2.4.1.4.2 Designated Critical Habitat. The SSF and SRF are not located
4 in an area designated as critical habitat for federally listed threatened or
5 endangered species as defined by the *Endangered Species Act of 1973*.

6
7 2.4.1.4.3 State Designated Habitat. The SSF and SRF are not located in
8 an area designated by the Washington State Department of Wildlife as habitat
9 essential to the maintenance or recovery of any state listed threatened or
10 endangered species.

11
12 2.4.1.4.4 Natural Area Preserves. The SSF and SRF are not located in
13 any natural area acquired or voluntarily registered or dedicated under
14 Chapter 79.70 Revised Code of Washington.

15
16 2.4.1.4.5 Wildlife Refuge, Preserve, or Bald Eagle Protection Area. The
17 SSF and SRF are not located in a state or federally designated wildlife
18 refuge, preserve, or bald eagle protection area.

19
20 2.4.1.5 Precipitation. The SSF and SRF are not located in an area having a
21 mean annual precipitation level of greater than 254 centimeters (100 inches)
22 (DOE 1987).

23 24 25 2.4.2 Criteria for Elements of the Built Environment

26
27 The following sections address the locational factors affecting
28 protection of the built environment. Each element of the criteria for
29 nonland-based facilities or units identified in WAC 173-303-282(7) is
30 addressed.

31
32 2.4.2.1 Adjacent Land Use. This section addresses the setback criteria for
33 adjacent land use.

34
35 **Nonland-Based Facilities.** The SSF and SRF are located approximately
36 7 kilometers (4.5 miles) from the closest Hanford Facility property line.

37
38 2.4.2.2 Special Land Uses. This section addresses setback criteria for
39 special land uses.

40
41 2.4.2.2.1 Wild and Scenic Rivers. The SSF and SRF are located in the
42 400 Area approximately 7 kilometers (4.5 miles) from the Columbia River, which
43 has been proposed as a Wild and Scenic River. The SSF and SRF are not within
44 the viewshed of users of the Columbia River.

45
46 2.4.2.2.2 Parks, Recreation Areas, National Monuments. The SSF and SRF
47 are situated approximately 7 kilometers (4.5 miles) from the closest Hanford
48 Facility boundary line and therefore are over 152 meters (500 feet) from the
49 nearest state or federally designated park, recreation area, or national
50 monument.

1 required to convert the elemental sodium to a form for reuse, or to an
2 acceptable stable form for disposal.

3
4 An evaluation will be completed by FFTF personnel in June 1998, in
5 conjunction with a TWRS Pretreatment Program evaluation (Tri-Party Agreement
6 Milestone M-50-03), which will determine the final sodium disposition and
7 form. Current planning is that the sodium will be converted to sodium
8 hydroxide at the SRF for use by the TWRS Pretreatment Program for caustic
9 washing of high-level waste tank sludges.

10
11 In the event the 1998 evaluation determines the sodium use at TWRS is not
12 viable, the sodium will have to be converted to an acceptable stable form for
13 disposal as mixed waste. Because of the uncertainty in the final sodium
14 regulatory designation, the SSF will be designed and constructed to meet RCRA
15 TSD requirements. This will eliminate having to modify the SSF to meet
16 WAC 173-303 storage requirements following the 1998 evaluation should the
17 sodium designation change from product to waste. If the sodium is confirmed
18 to be a product, the SSF and SRF would undergo procedural closure as defined
19 in Section 6.3.3 of the Tri-Party Agreement. However, if the sodium is
20 determined to be a waste, a closure plan would be prepared and submitted.

21 22 23 5.0 IMPACT ON OVERALL CAPACITY AT THE HANFORD FACILITY AND THE 24 STATE OF WASHINGTON

25
26
27 The current capacity for treating, storing, and/or disposing of mixed
28 waste is limited within Washington State and the Hanford Facility. The SSF
29 and SRF will have the means to treat and store mixed waste.

30 31 32 6.0 REFERENCES

33 34 35 6.1 DOCUMENTS

36
37 DOE, 1987, *Final Environmental Impact Statement: Disposal of Hanford Defense*
38 *High-Level, Transuranic and Tank Wastes*, Vol. 1-5, DOE/EIS-0113,
39 U.S. Department of Energy, Washington, D.C.

40
41 DOE, 1988, *Site Characterization Plan, Consultation Draft*, DOE/RW-0164,
42 Vol. 1, U.S. Department of Energy, Washington, D.C.

43
44 DOE-RL, 1988b, *Hanford Facility Dangerous Waste Part A Permit Application*,
45 Vols. 1 through 3, DOE/RL 88-21, U.S. Department of Energy-Richland
46 Operations Office, Richland, Washington.

47
48 DOE, 1993, "Commence Fast Flux Test Facility Shutdown (FFTF) Activities",
49 Memorandum of December 15, 1993, from Daniel A. Dreyfus, U.S. Department
50 of Energy to John D. Wagoner, U.S. Department of Energy, Richland
51 Operations Office.

1 Ecology, EPA, and DOE, 1994, *Hanford Federal Facility Agreement and*
2 *Consent Order*, as amended, Washington State Department of Ecology,
3 U.S. Environmental Protection Agency, U.S. Department of Energy,
4 Olympia, Washington.

5
6 ICBO, 1991, *Uniform Building Code*, International Conference of Building
7 Officials, Whittier, California.

8
9 NRC, 1982, *Safety Evaluation Report (Related to the Operation of WPPSS Nuclear*
10 *Project) No. 2*, NUREG-0892 Supplement No. 1, U.S. Nuclear Regulatory
11 Commission, Washington, D.C.

12
13 PNL, 1994, *Hanford Site National Environmental Policy Act (NEPA)*
14 *Characterization*, PNL-6415, Revision 6, Pacific Northwest Laboratory,
15 Richland, Washington.

16
17 WHC, 1991, *Geology and Hydrology of the Hanford Site: A Standardized Text for*
18 *Use in Westinghouse Hanford Company Documents and Reports*,
19 WHC-SD-ER-TI-003, Westinghouse Hanford Company.

20
21
22 **6.2 FEDERAL AND STATE ACTS**

23
24 *Resource Conservation and Recovery Act of 1976*, 42 USC 6901 et seq.

25
26 *Safe Drinking Water Act of 1974*, 42 USC 300f et seq.

27
28 *Wild and Scenic Rivers Act of 1968*, 16 USC 1271 et seq.

29
30 *Wilderness Act of 1964*, 16 USC 1131 et seq.

31
32
33 **6.3 REVISED CODE OF WASHINGTON AND WASHINGTON ADMINISTRATIVE CODE**

34
35 *State Environmental Policy Act of 1971*, RCW 43.21c.

36
37 WAC 173-303, *Dangerous Waste Regulations*.

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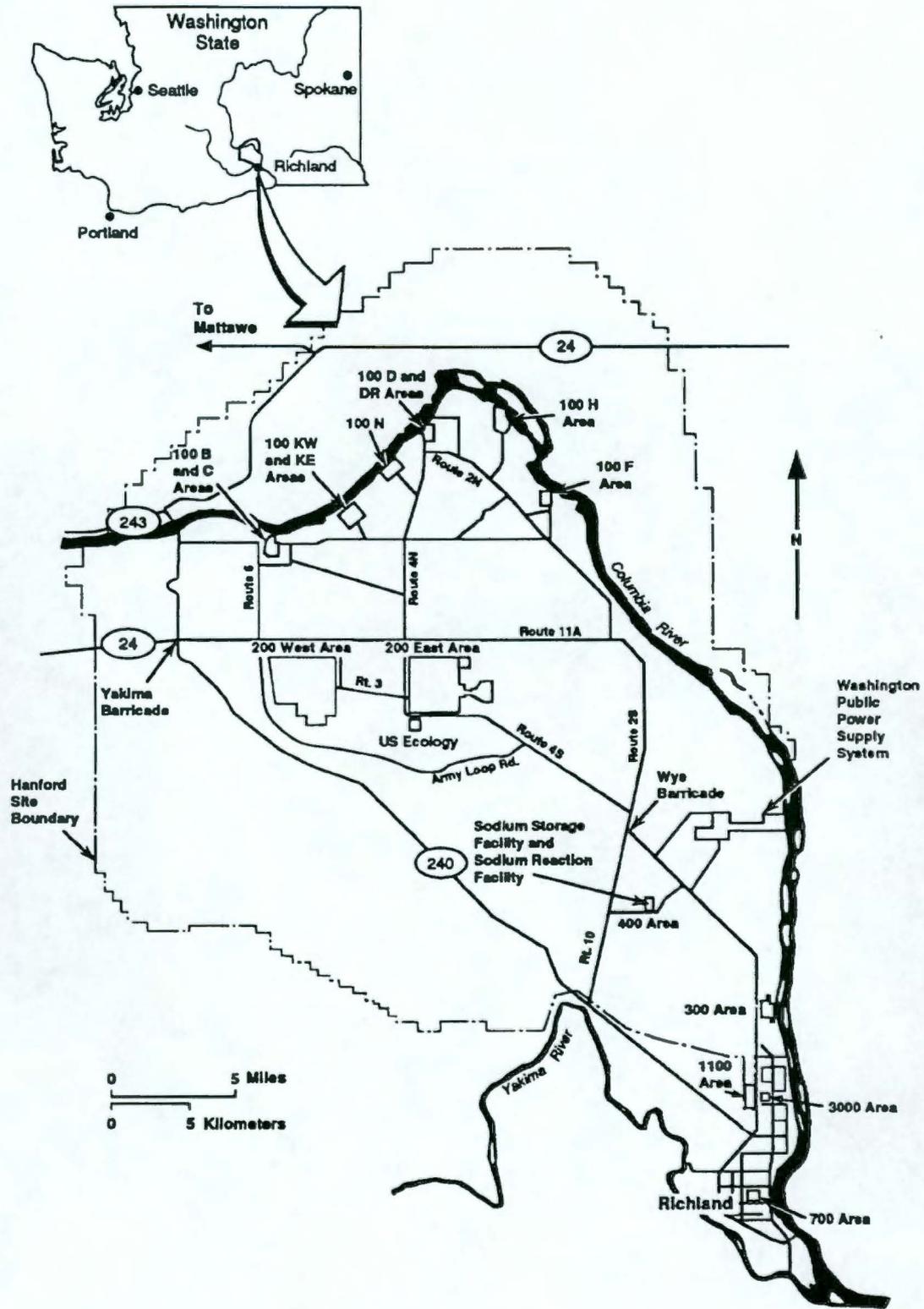


Figure 1. Hanford Site.

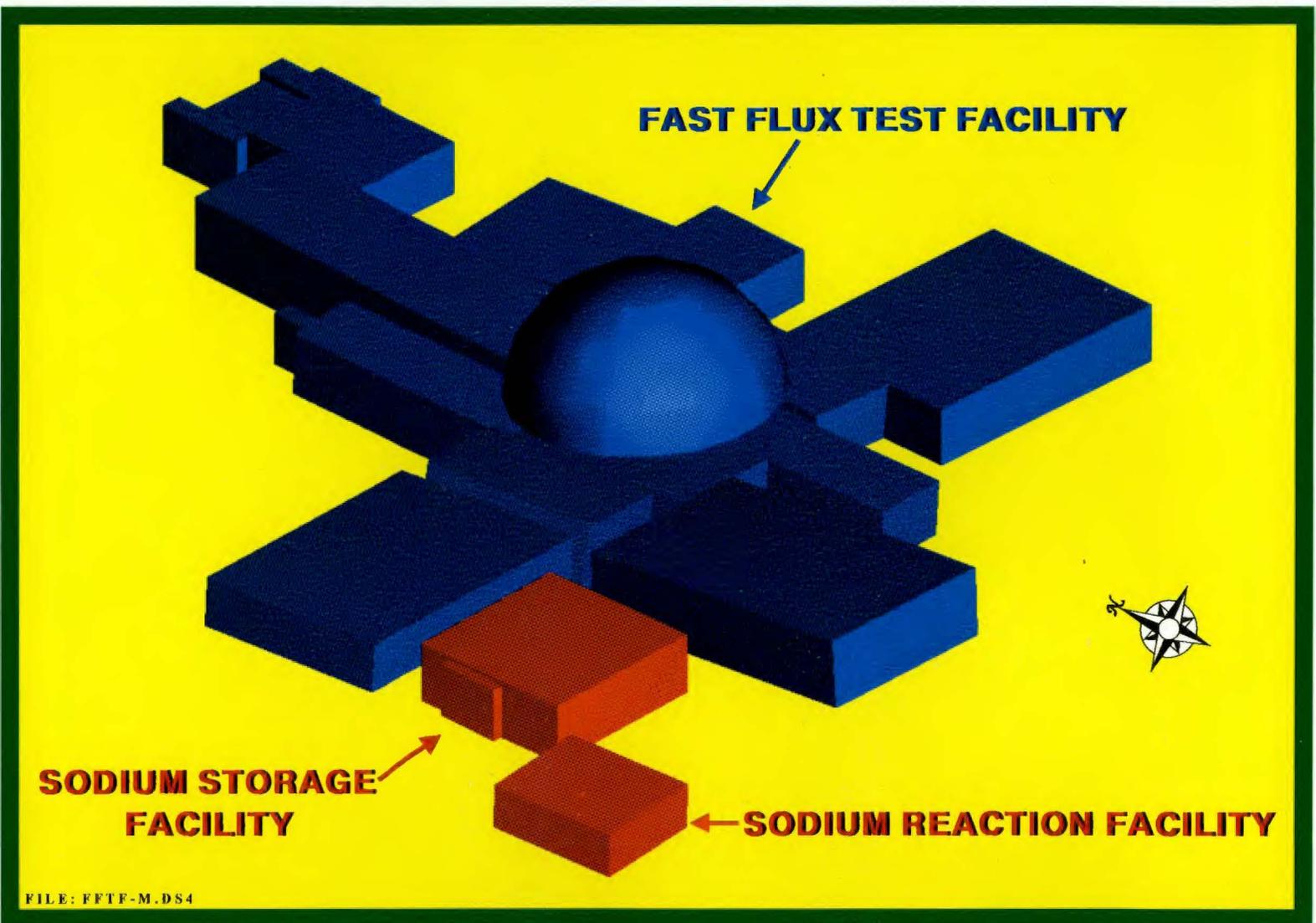
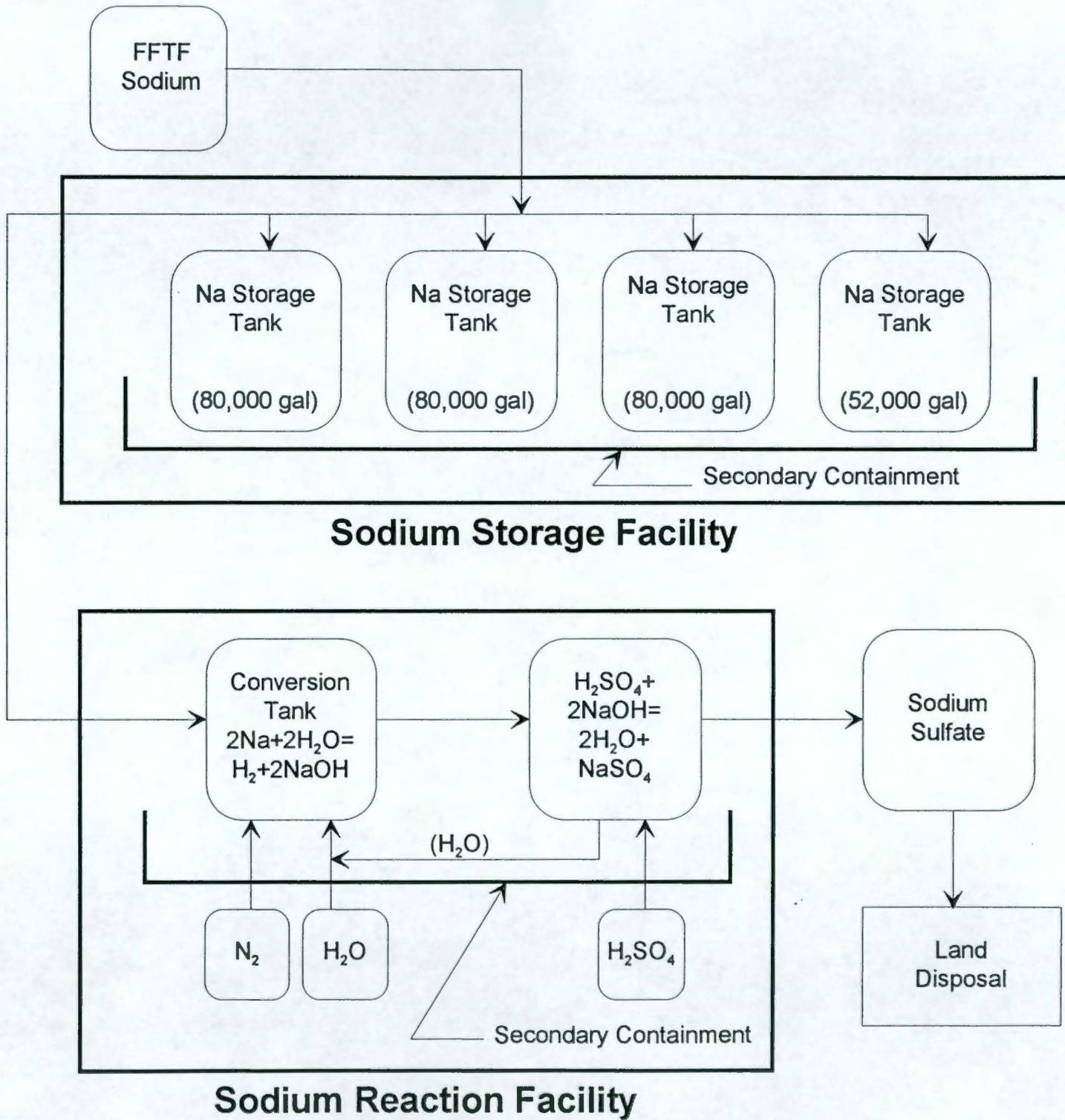
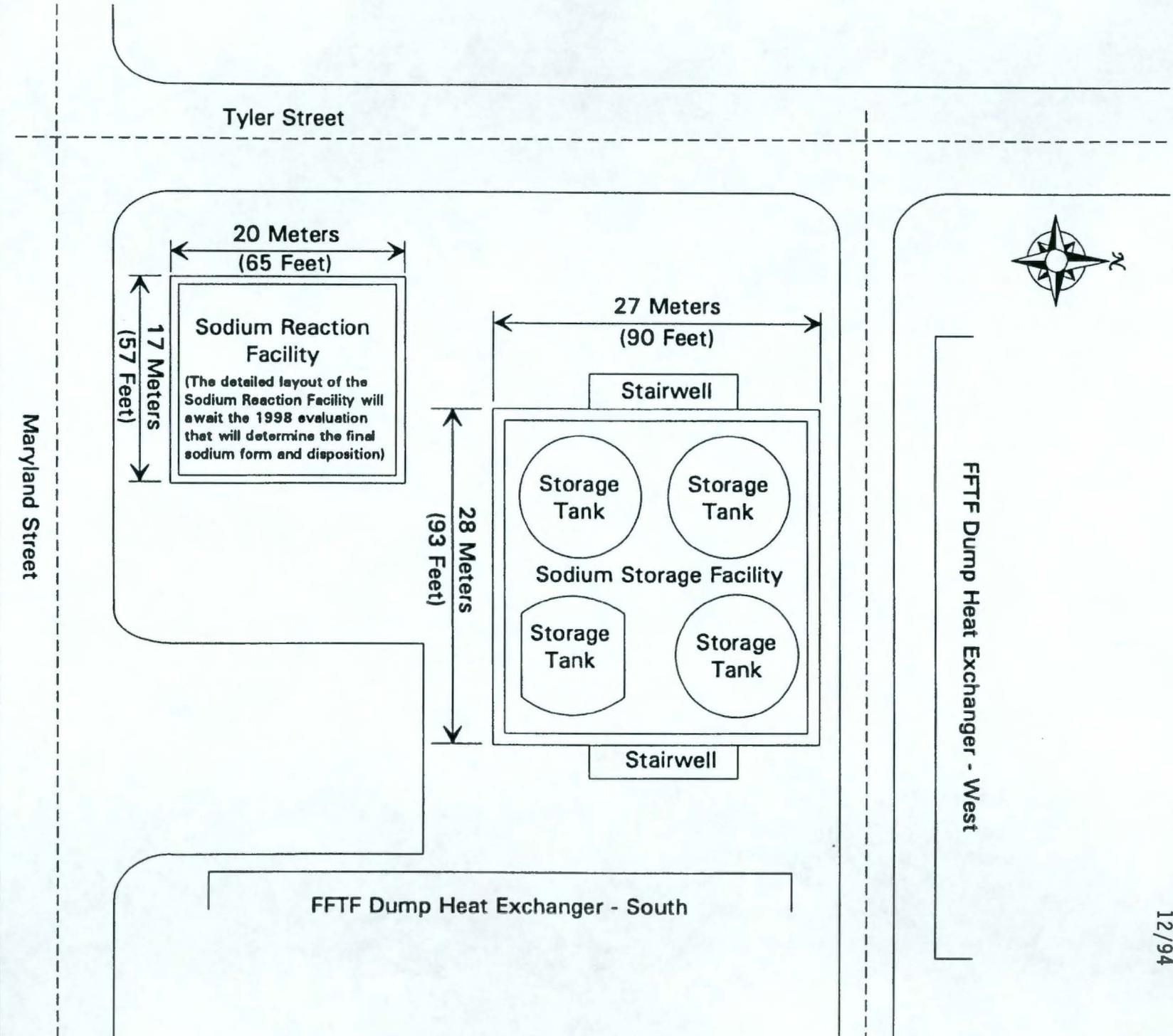


Figure 2. Location of Sodium Storage Facility and Sodium Reaction Facility.

Figure 3. Sodium Storage Facility Process Flow Diagram.





FFTF Dump Heat Exchanger - West

FFTF Dump Heat Exchanger - South

Tyler Street

Maryland Street

Figure 4. Location of Storage Tanks in the Sodium Storage Facility.

APPENDICES

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- 4 A LOCATION MAPS
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- 6 B STATE ENVIRONMENTAL POLICY ACT ENVIRONMENTAL CHECKLIST
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- 8 C SUMMARY OF NOTICES OF COMPLIANCE VIOLATIONS AND THE U.S. DEPARTMENT
- 9 OF ENERGY, RICHLAND OPERATIONS OFFICE RESPONSES

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APPENDIX A

LOCATION MAPS

APPENDIX A

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H-6-958	General Overview of Hanford Site.
H-13-000258	Sodium Storage & Reaction Facilities.

APPENDIX B

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STATE ENVIRONMENTAL POLICY ACT ENVIRONMENTAL CHECKLIST

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**STATE ENVIRONMENTAL POLICY ACT
ENVIRONMENTAL CHECKLIST**

FOR

**HANFORD FACILITY,
SODIUM STORAGE FACILITY AND SODIUM REACTION FACILITY**

REVISION 0

DECEMBER 1994

**WASHINGTON ADMINISTRATIVE CODE
ENVIRONMENTAL CHECKLIST FORMS
[WAC 197-11-960]**

1 A. BACKGROUND

2
3 1. Name of proposed project, if applicable:

4
5 Expansion of the Hanford Facility with the Sodium Storage Facility (SSF)
6 and Sodium Reaction Facility (SRF) tank storage and treatment. This
7 *State Environmental Policy Act (SEPA) of 1971* Environmental Checklist is
8 being submitted concurrently with the Notice of Intent (NOI) for
9 expansion under interim status for the Hanford Facility. Waste
10 management activities at the SSF and SRF are planned expansions to allow
11 greater-than-90-day storage and treatment capacities for sodium waste
12 from the Fast Flux Test Facility (FFTF).
13

14 2. Name of applicants:

15
16 U.S. Department of Energy, Richland Operations Office (DOE-RL), and
17 Westinghouse Hanford Company (Westinghouse Hanford).
18

19 3. Address and phone number of applicants and contact persons:

20
21 Owner and Operator

22
23 U.S. Department of Energy
24 Richland Operations Office
25 P.O. Box 550
26 Richland, Washington 99352
27

21 Co-operator

22
23 Westinghouse Hanford Company
24 P.O. Box 1970
25 Richland, Washington 99352
26

28 Contact Persons:

29
30 J. E. Rasmussen, Acting Program Manager
31 Office of Environmental Assurance,
32 Permits and Policy
33 (509) 376-2247
34

30 W. T. Dixon, Manager
31 Environmental Services
32 (509) 376-6821
33

35 4. Date checklist was prepared:

36
37 December 1, 1994
38

39 5. Agency requesting checklist:

40
41 Washington State
42 Department of Ecology
43 Post Office Box 47600
44 Olympia, Washington 98504-7600
45

46 6. Proposed timing or schedule (including phasing, if applicable):

47
48 This SEPA Environmental Checklist is being submitted concurrently with
49 the NOI. The NOI is being submitted in accordance with the Washington
50 State Department of Ecology (Ecology) *Dangerous Waste Regulations*,
51 Washington Administrative Code (WAC) 173-303-281, "Notice of Intent,"

1 which requires that dangerous waste facility owners and/or operators
2 submit a NOI before submittal of a Part A permit application, Form 3, for
3 new or expanded dangerous waste treatment, storage, and/or disposal (TSD)
4 units. After submittal of the NOI, there will be an opportunity for
5 public notification and review for 150 days. Submittal of the Hanford
6 Facility Dangerous Waste Part A permit application, Form 3, for the SSF
7 and SRF, Revision 0, will occur after the public comment period.
8

9 Construction of the SSF would be initiated in November 1995, and would be
10 complete by January 1997. Construction of the SRF could be initiated in
11 July 2001, with completion by September 2002.
12

13 The sodium coolant will be maintained within the FFTF systems prior to
14 drain, and within the SSF as product material until an evaluation is
15 completed in June 1998 (*Hanford Federal Facility Agreement and Consent*
16 *Order* [Tri-Party Agreement] Milestone M-50-03) that will determine the
17 final sodium disposition and form. Current planning is that the sodium
18 will be converted to sodium hydroxide for use by the Tank Waste
19 Remediation System (TWRS) Pretreatment Program for caustic washing of
20 high-level waste tank sludges. In the event the 1998 evaluation
21 determines the sodium use at TWRS is not viable, the sodium will be
22 converted to an acceptable stable form for disposal as mixed waste.
23

24 Because of the uncertainty in the final sodium regulatory designation,
25 the SSF and SRF will be designed and constructed to meet *Resource*
26 *Conservation and Recovery Act* (RCRA) of 1976 requirements, as implemented
27 by WAC 173-303. This will eliminate modifying the SSF and SRF to meet
28 WAC 173-303 requirements following the 1998 evaluation should the sodium
29 designation change from product to waste. If the sodium is confirmed to
30 be a product, the SSF and SRF would undergo procedural closure as defined
31 in Section 6.3.3 of the Tri-Party Agreement. However, if the sodium is
32 determined to be a waste, a closure plan would be prepared and submitted.
33

34 **7. Do you have any plans for future additions, expansion, or further**
35 **activity related to or connected with this proposal? If yes, explain.**
36

37 No. There are no current plans for additions or expansion of the SSF and
38 SRF. However, the SSF and SRF are integral elements in the shutdown of
39 the FFTF, which involves placing FFTF in a radiologically and
40 industrially safe shutdown condition. In a December 15, 1993 memorandum
41 DOE notified its Richland Operations Office of the decision to initiate
42 this action beginning December 15, 1993. The memorandum also provided a
43 goal to accomplish the shutdown effort in approximately 5 years.
44

- 1 8. List any environmental information you know about that has been prepared,
2 or will be prepared, directly related to this proposal.
3

4 The SSF and SRF will be located southwest of the FFTF in the 400 Area of
5 the Hanford Facility, approximately 11.3 kilometers (7 miles) north of
6 the city of Richland, Washington. The section, township, and range are
7 as follows: Section 18, Township 11N, Range 28E. A map and site plans
8 are included with the SSF and SRF NOI.
9

10 In accordance with the "National Environmental Policy Act Implementing
11 Procedures" (10 *Code of Federal Regulations* [CFR] 1021), an evaluation
12 (environmental assessment) of potential environmental impacts associated
13 with the proposed shutdown of the FFTF is being prepared to comply with
14 the *National Environmental Policy Act (NEPA) of 1969*. Based on that
15 evaluation, the U.S. Department of Energy will determine if the proposed
16 shutdown would individually or cumulatively have a significant effect on
17 the human environment.
18

19 General information concerning the Hanford Facility environment can be
20 found in the *Hanford Site National Environmental Policy Act (NEPA)*
21 *Characterization, PNL-6415, Pacific Northwest Laboratory, Richland,*
22 *Washington (PNL 1994)*. This document is updated periodically by the
23 Pacific Northwest Laboratory (PNL), and provides current information
24 concerning climate and meteorology, ecology, history and archaeology,
25 socioeconomics, land use and noise levels, and geology and hydrology.
26 These baseline data are useful in evaluating proposed activities and
27 potential impacts.
28

29 In accordance with "National Emission Standards for Hazardous Air
30 Pollutants (NESHAPs)" (40 CFR 61, Subpart H, [radioactive only]), and
31 "Radioactive Air Emissions Program (RAEP)" (WAC 246-247), a Notice of
32 Construction (NOC) will be prepared for the SSF and SRF. No significant
33 increases in air emissions are anticipated as a result of construction
34 and operation. Although specific estimates of emissions are not yet
35 available for the SSF and SRF, emissions would be maintained below
36 acceptable limits. It is anticipated that the NOC must receive approval
37 from the State of Washington Department of Health (DOH) and the
38 U.S. Environmental Protection Agency (EPA) before construction.
39 Additionally, preconstruction approval will be required from Ecology,
40 pursuant to WAC 173-400, *General Regulations for Air Pollution Sources*,
41 and WAC 173-460, *Controls for New Sources of Toxic Air Pollutants*.
42

43 Fugitive emissions (especially dust) from construction activities
44 associated with the SSF and SRF will be controlled in accordance with
45 normal practices, per the Benton-Franklin Clean Air Authority.
46

1 9. Do you know whether applications are pending for government approvals of
2 other proposals directly affecting the property covered by your proposal?
3 If yes, explain.
4

5 No. The Hanford Facility RCRA Permit has been issued with an effective
6 as date of September 1994.
7

8 10. List any government approvals or permits that will be needed for your
9 proposal, if known.
10

11 This SEPA Environmental Checklist accompanies the NOI required by
12 WAC 173-303-281. The requirements are that dangerous waste facility
13 owners and/or operators submit a NOI before submittal of a permit
14 application for new or expanded dangerous waste TSD units on the Hanford
15 Facility.
16

- 17 • Any radioactive airborne emissions from the SSF and SRF would be
18 within allowable limits. The FFTF is registered with the DOH,
19 pursuant to WAC 246-247, *Radiation Protection - Air Emissions*. These
20 regulations establish the same standards as 40 CFR Part 61, "National
21 Emission Standards for Hazardous Air Pollutants," (0.01 rem, maximum
22 individual effective dose equivalent), and additional requirements
23 such as source registration. Best available radionuclide control
24 technology is required for new or modified sources by WAC 402-80,
25 "Monitoring and Enforcement of Air Quality and Emission Standards for
26 Radionuclides," and WAC 173-480, "Ambient Air Quality Standards and
27 Emission Limits for Radionuclides." Appropriate notifications for the
28 SSF and SRF would be provided to the DOH.
29
- 30 • Potential stormwater discharge during construction would be addressed
31 under the General Permit (WA-R-10-000F) through the EPA.
32
- 33 • Additional Hanford Facility permits, such as an excavation permit,
34 would be obtained before construction.
35

36 11. Give brief, complete description of your proposal, including the proposed
37 uses and the size of the project and site. There are several questions
38 later in this checklist that ask you to describe certain aspects of your
39 proposal. You do not need to repeat those answers on this page.
40

41 For the purpose of this checklist, the site is considered to be the area
42 adjacent to (southwest of) FFTF. The area is delineated in the
43 topographical map (drawing number H-13-000258) provided in Appendix A of
44 the accompanying NOI.
45

46 The FFTF is a liquid-metal cooled test reactor located on the Hanford
47 Facility. On December 15, 1993, the U.S. Department of Energy directed
48 that FFTF be placed in a radiologically and industrially safe shutdown
49 condition. Transition to shutdown condition requires that the FFTF
50 sodium coolant (approximately 980,000 liters [260,000 gallons]) be
51 removed from the various systems throughout the FFTF and stored at an

1 interim location. Completion of sodium drain from FFTF will result in a
2 major reduction in costs for the FFTF. As a result, efforts are focused
3 on accelerating the sodium drain to the maximum extent possible, within
4 budgetary and regulatory constraints. The SSF will store this sodium
5 inventory in a solid state under an inert cover gas until such time as
6 the SRF is available for final disposition of the sodium.
7

8 The SSF will consist of three approximately 300,000-liter (80,000-gallon)
9 tanks and one approximately 197,000-liter (52,000-gallon) tank, with a
10 concrete building constructed around and over the tanks to provide
11 shielding and weather protection for the tanks and installed equipment.
12 Based on the conceptual design, the structure is 27 meters (90 feet) by
13 28 meters (93 feet), and approximately 12 meters (41 feet) high. The
14 walls are monolithic, 0.5-meter (18-inch) thick cast-in-place concrete
15 and function as load bearing walls in addition to providing necessary
16 shielding from the radioactive sodium. The SSF will be constructed
17 adjacent to the FFTF; at a later date, the SRF will be constructed in
18 close proximity to the SSF.
19

20 A secondary containment sump will be provided in the SSF that is capable
21 of containing the contents of one of the 300,000-liter (80,000-gallon)
22 tanks. The storage tanks, piping, and heating equipment will be capable
23 of heating and maintaining the equipment and sodium at a set point
24 temperature between 177°C (350°F) and 204°C (400°F) with the
25 lines/equipment empty or full of sodium. An inert cover gas blanket will
26 be maintained over the sodium at all times. Each of the tanks will be
27 capable of withstanding a full vacuum and an internal pressure of
28 340,000 pascals (50 pounds per square inch gauge) [at 204°C (400°F)], and
29 will be provided with overpressure protection that will not allow air
30 backflow into the tank after release. Vented gases will be directed
31 through a high-efficiency particulate air (HEPA) filter.
32

33 As discussed in Item 6, an evaluation will be completed in June 1998 by
34 FFTF personnel, in conjunction with a TWRS Pretreatment Program
35 evaluation (Tri-Party Agreement Milestone M-50-03), which will determine
36 the final sodium disposition and form. Current planning is that the
37 sodium will be converted to sodium hydroxide at the SRF for use by the
38 TWRS Pretreatment Program for caustic washing of high-level waste tank
39 sludges. If this turns out to be the case, the SSF and SRF will be
40 procedurally closed. However, as a contingency, in the event that use of
41 sodium hydroxide by the TWRS Program is not viable (as determined by the
42 1998 evaluation), the sodium will be converted to a stable form (e.g.,
43 sodium sulfate) for land disposal on the Hanford Facility.
44

45 The sodium reaction process used by Argonne National Laboratory-West in
46 Idaho currently forms the technical baseline for the SRF. The process
47 consists of injecting molten sodium metal and water into a reaction
48 vessel partially filled with 30 percent to 50 percent sodium hydroxide at
49 about 116°C (240°F). The vigorous reaction produces more sodium
50 hydroxide and hydrogen gas. The gas is swept out of the vessel by a
51 nitrogen cover gas purge and the gas is maintained at sufficiently low

1 dilution so as not to be flammable when mixed with air. If disposal of
2 the sodium as mixed waste is required, the sodium hydroxide solution
3 would be reacted with sulfuric acid to produce sodium sulfate. The
4 sodium sulfate would be dried and collected into containers and
5 transported to for disposal on the Hanford Facility.
6

7 The maximum amount of waste to be managed annually in the SRF is
8 approximately 984,000 liters (260,000 gallons). The building size is
9 expected to be approximately 20 meters (65 feet) by 17 meters (57 feet)
10 by 11 meters (35 feet) high. Detailed layout of the SRF will await the
11 1998 evaluation which will determine the final sodium form and
12 disposition.
13

- 14 12. Location of the proposal. Give sufficient information for a person to
15 understand the precise location of your proposed project, including a
16 street address, if any, and section, township, and range, if known. If a
17 proposal would occur over a range of area, provide the range or
18 boundaries of the site(s). Provide a legal description, site plan,
19 vicinity map, and topographic map, if reasonably available. While you
20 should submit any plans required by the agency, you are not required to
21 duplicate maps or detailed plans submitted with any permit applications
22 related to this checklist.
23

24 The Hanford Facility is located in the southeastern portion of Washington
25 State. The FFTF is located in the 400 Area approximately 11.3 kilometers
26 (7 miles) north of the city of Richland. The area is delineated in the
27 topological map (drawing number H-13-000258) provided in Appendix A of
28 the accompanying NOI.
29
30

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EVALUATION FOR
AGENCY USE ONLY

1 B. ENVIRONMENTAL ELEMENTS
2

3 1. Earth
4

- 5 a. General description of the site (circle one): Flat,
6 rolling, hilly, steep slopes, mountainous,
7 other _____.

8
9 The terrain of the central and eastern portions of
10 the Hanford Facility is relatively flat. The SSF
11 and SRF would be located within the 400 Area, which
12 is flat.
13

- 14 b. What is the steepest slope on the site (approximate
15 percent slope)?
16

17 The proposed location for the SSF and SRF within the
18 400 Area is flat.
19

- 20 c. What general types of soils are found on the site
21 (for example, clay, sandy gravel, peat, muck)? If
22 you know the classification of agricultural soils,
23 specify them and note any prime farmland.
24

25 Soil types consist mainly of eolian and fluvial
26 sands and gravel. More detailed information
27 concerning specific soil classifications can be
28 found in the *Hanford Site National Environmental*
29 *Policy Act (NEPA) Characterization*, PNL-6415,
30 Revision 6. Farming is not permitted on the Hanford
31 Facility.
32

- 33 d. Are there surface indications or history of unstable
34 soils in the immediate vicinity? If so, describe.
35

36 Seismicity of the Columbia Plateau is relatively
37 low.
38

- 39 e. Describe the purpose, type, and approximate
40 quantities of any filling or grading proposed.
41 Indicate source of fill.
42

43 Existing materials may be reestablished, as
44 appropriate, after removal for siting foundations
45 for the SSF and SRF.
46

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**EVALUATION FOR
AGENCY USE ONLY**

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f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.

Erosion due to wind, water movement, and excavation activities could not occur in areas on and directly surrounding the SSF and SRF.

g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings).

No additional area would be covered.

h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any:

Appropriate engineering would provide for foundation stabilization.

2. Air

a. What types of emissions to the air would result from the proposal (i.e., dust, automobile, odors, industrial wood smoke) during construction and when the project is completed? If any, generally describe and give approximate quantities, if known.

Excavation activities would result in the generation of exhaust emissions from heavy equipment and vehicles used to gain access to the site.

Dust would be generated during construction activities. Dust mitigation and control would be provided.

b. Are there any offsite sources of emissions or odors that may affect your proposal? If so, generally describe.

Offsite emissions and odors are not expected to affect the proposal.

c. Proposed measures to reduce or control emissions or other impacts to the air, if any?

Good engineering and construction practices would be followed, and actions would comply with onsite

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EVALUATION FOR
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1 procedures designed to protect the environment and
2 worker safety and health.

3
4 **3. Water**

5
6 **a. Surface**

- 7
8 **1. Is there any surface water body on or in the**
9 **immediate vicinity of the site (including year-**
10 **round and seasonal streams, saltwater, lakes,**
11 **ponds, wetlands)? If yes, describe type and**
12 **provide names. If appropriate, state what**
13 **stream or river it flows into.**

14
15 No. There is no surface water body on or in the
16 immediate vicinity of the SSF and SRF. Two
17 intermittent streams traverse through the
18 Hanford Facility, Cold Creek and Dry Creek.
19 Water drains through these creeks during the
20 wetter winter and spring months. No perennial
21 streams originate within the Columbia Plateau.
22 Primary surface-water features associated with
23 the Hanford Facility are the Columbia and Yakima
24 Rivers, and their major tributaries, the Snake
25 and Walla Walla Rivers. West Lake, about
26 4.05 hectares (10 acres) in size and less than
27 0.9 meter (3 feet) deep, is the only natural
28 lake within the Hanford Facility. Waste water
29 ponds, cribs, and ditches associated with waste
30 disposal activities also are present on the
31 Hanford Facility.

- 32
33 **2. Will the project require any work over, in, or**
34 **adjacent to (within 200 feet) the described**
35 **waters? If yes, please describe and attach**
36 **available plans.**

37
38 No. The construction of the SSF and SRF will
39 not require any activity in or near the
40 described waters and drainages.
41

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**EVALUATION FOR
AGENCY USE ONLY**

- 1 3. Estimate the amount of fill and dredge material
2 that would be placed in or removed from surface
3 water or wetlands and indicate the area of the
4 site that would be affected. Indicate the
5 source of fill material.
6

7 Not applicable. There will be no dredging or
8 filling from or to surface water or wetlands.
9

- 10 4. Will the proposal require surface water
11 withdrawals or diversions? Give general
12 description, purpose, and approximate quantities
13 if known.
14

15 No.
16

- 17 5. Does the proposal lie within a 100-year
18 floodplain? If so, note location on the site
19 plan.
20

21 No. The SSF and SRF are not within the 100- or
22 500-year floodplains [*Hanford Site National*
23 *Environmental Policy Act (NEPA)*
24 *Characterization, PNL-6415, Revision 6*].
25

- 26 6. Does the proposal involve any discharges of
27 waste materials to surface waters? If so,
28 describe the type of waste and anticipated
29 volume of discharge.
30

31 No.
32

33 **b. Ground**
34

- 35 1. Will ground water be withdrawn, or will water be
36 discharged to ground water? Give general
37 description, purpose, and approximate quantities
38 if known.
39

40 Groundwater may be withdrawn from existing
41 wells, in support of the SRF moist inert gas
42 requirements.
43

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AGENCY USE ONLY

- 1 2. Describe waste material that will be discharged
2 into the ground from septic tanks or other
3 sources, if any (for example: Domestic sewage;
4 industrial, containing the following chemicals;
5 agricultural.., etc.,). Describe the general
6 size of the system, the number of such systems,
7 the number of houses to be served (if
8 applicable), or the number of animals or humans
9 the system(s) are expected to serve.

10
11 An existing 400 Area sanitary sewer system would
12 be used to support domestic sewage and sanitary
13 water from the SRF. The discharge point is
14 located approximately 0.4 kilometer (0.25 mile)
15 north of the 400 Area fence.

16
17 c. Water Run-off (including storm water)

- 18
19 1. Describe the source of run-off (including storm
20 water) and method of collection and disposal, if
21 any (include quantities, if known). Where will
22 this water flow? Will this water flow into
23 other waters? If so, describe.

24
25 Project design and construction restraints would
26 minimize run-off as much as possible, through
27 construction of berms, riprap, or other erosion
28 controls as necessary. Because of the small
29 amount of precipitation that normally falls in
30 the area (about 0.2 meter [0.5 foot] per year),
31 and the porous sandy soil, precipitation run-off
32 would not be expected to reach the river.

33
34 Storm water would be collected from the roof
35 using exterior rain gutters and would be piped
36 to an existing underground process sewer drain
37 piping system approved for this use.

- 38
39 2. Could waste materials enter ground or surface
40 waters? If so, generally describe.

41
42 No.

43
44 d. Proposed measures to reduce or control surface,
45 ground, and run-off water impacts, if any:

46
47 Design of the SSF and SRF would prevent or minimize
48 run-off.

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**EVALUATION FOR
AGENCY USE ONLY**

1 **4. Plants**

2
3 **a. Check or circle the types of vegetation found on the**
4 **site.**

- 5
6 deciduous tree: alder, maple, aspen, other
7 evergreen tree: fir, cedar, pine, other
8 shrubs
9 grass
10 pasture
11 crop or grain
12 wet soil plants: cattail, buttercup, bulrush,
13 skunk cabbage, other
14 water plants: water lily, eelgrass, milfoil,
15 other
16 other types of vegetation
17

18 A biological survey was performed for the SSF and
19 SRF site in May 1994. Substrate at the site
20 consists primarily of pavement and packed gravel
21 that is herbicided annually. No vegetation was
22 observed.
23

24 **b. What kind and amount of vegetation will be removed**
25 **or altered?**

26
27 None.

28
29 **c. List threatened or endangered species known to be on**
30 **or near the site.**

31
32 The biological survey did not identify any species
33 considered rare, threatened, or endangered at the
34 proposed site.
35

36 **d. Proposed landscaping, use of native plants, or other**
37 **measures to preserve or enhance vegetation on the**
38 **site, if any:**

39
40 None are anticipated.
41

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EVALUATION FOR
AGENCY USE ONLY

1 5. Animals
2

- 3 a. Circle any birds and animals which have been
4 observed on or near the site or are known to be on
5 or near the site:
6

7 A biological survey of the site was performed in
8 May 1994. Birds such as the Western Kingbird
9 (*Tyrannus verticalis*), Western Meadowlark (*Sturnella*
10 *neglecta*), European starling (*Sturnus vulgaris*),
11 American Kestrel (*Falco sparverius*), and Barn
12 Swallow (*Hirundo rustica*) were observed in the
13 vicinity of the proposed project. Mule deer,
14 rabbits, badgers, and coyotes occasionally are seen
15 in the general area.
16

- 17 b. List any threatened or endangered species known to
18 be on or near the site.
19

20 No species protected under the *Endangered Species*
21 *Act of 1973*, candidates for such protection, or
22 species listed as threatened, endangered, candidate,
23 sensitive, or monitored by the Washington State
24 government were observed during the biological
25 survey. However, two federal and state listed
26 threatened or endangered species have been
27 identified on the Hanford Facility along the
28 Columbia River: the bald eagle and peregrine falcon.
29 In addition, the state listed white pelican,
30 sandhill crane, and ferruginous hawk also occur on
31 or migrate through the Hanford Facility.
32

- 33 c. Is the site part of a migration route? If so,
34 explain.
35

36 The Hanford Facility is a part of the Pacific
37 Flyway.
38

- 39 d. Proposed measures to preserve or enhance wildlife,
40 if any:
41

42 None are anticipated.
43

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EVALUATION FOR
AGENCY USE ONLY

1 6. Energy and Natural Resources
2

- 3 a. What kinds of energy (electric, natural gas, oil,
4 wood stove, solar) will be used to meet the
5 completed project's energy needs? Describe whether
6 it will be used for heating, manufacturing, etc.
7

8 Diesel fuel, gasoline, oil, and electrical power
9 could be used on a temporary basis by construction
10 equipment and to power lighting systems.

11
12 Operations in the SSF and SRF (e.g., monitoring
13 equipment, pumps) would use electricity.
14

- 15 b. Would your project affect the potential use of solar
16 energy by adjacent properties? If so, generally
17 describe.
18

19 No.
20

- 21 c. What kinds of energy conservation features are
22 included in the plans of this proposal? List other
23 proposed measures to reduce or control energy
24 impacts, if any:
25

26 Not readily applicable to the proposed action.
27

28 7. Environmental Health
29

- 30 a. Are there any environmental health hazards,
31 including exposure to toxic chemicals, risk of fire
32 and explosion, spill, or hazardous waste, that could
33 occur as a result of this proposal? If so,
34 describe.
35

36 Heavy equipment and excavation activities during
37 construction pose potential worker safety hazards.
38 Metallic sodium, especially in the molten state,
39 presents risks of fire (when exposed to air),
40 explosion (when exposed to water), and spills.
41

- 42 1. Describe special emergency services that might
43 be required.
44

45 Hanford Facility security, fire response, and
46 ambulance services are on call at all times in
47 the event of an onsite emergency. Hanford
48 Facility emergency services personnel are

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AGENCY USE ONLY**

1 specially trained to manage a variety of
2 emergency circumstances. The 400 Area's fire
3 station is specially trained to deal with events
4 associated with sodium.
5

6 **2. Proposed measures to reduce or control**
7 **environmental health hazards, if any:**
8

9 A Hanford Facility safety supervisor, with a
10 minimum of 3 years prior work experience as a
11 construction safety inspector, would be
12 available at the jobsite during all construction
13 activities. In addition, a pre-job safety
14 analysis would be prepared to address potential
15 project-specific hazards and work items, such as
16 excavating, hazardous materials handling,
17 hoisting and rigging, welding, air monitoring.
18

19 Radioactive airborne emissions from the SSF and
20 SRF are expected to be limited to tritium. The
21 proposed action would limit the annual average
22 tritium concentration to less than the allowable
23 amount.
24

25 **b. Noise**
26

27 **1. What type of noise exists in the area which may**
28 **affect your project (for example: traffic,**
29 **equipment, operation, other)?**
30

31 While there is a minor amount of traffic,
32 operation, and equipment noise in the vicinity,
33 this noise would not be expected to affect the
34 SSF or the SRF, or site personnel.
35

36 **2. What types and levels of noise would be created**
37 **by or associated with the project on a short-**
38 **term or a long-term basis (for example:**
39 **traffic, construction, operation, other)?**
40 **Indicate what hours noise would come from the**
41 **site.**
42

43 Construction of the SSF and SRF would increase
44 noise levels on a temporary basis in the
45 immediate vicinity of the FFTF. However, the
46 operation of the SSF and SRF would not be
47 expected to increase noise in the 400 Area, as
48 overall existing FFTF operations would be

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**EVALUATION FOR
AGENCY USE ONLY**

1 ramping down during shutdown. Also, the SSF
2 and SRF would not produce an increase in noise
3 levels off the Hanford Facility.
4

5 **3. Proposed measures to reduce or control noise**
6 **impacts, if any:**
7

8 Excavation and construction equipment would meet
9 manufacturer's requirements for noise
10 suppression. If Occupational Safety and Health
11 Administration noise standards were exceeded,
12 appropriate measures to protect workers would be
13 employed.
14

15 **8. Land and Shoreline Use**
16

17 **a. What is the current use of the site and adjacent**
18 **properties?**
19

20 The Hanford Facility is a single RCRA facility
21 identified by the U.S. Environmental Protection
22 Agency (EPA)/State Identification Number
23 WA7890008967 that consists of over 60 TSD units
24 conducting dangerous waste management activities.
25 These TSD units are included in the *Hanford Facility*
26 *Dangerous Waste Part A Permit Application*. The
27 Hanford Facility consists of all contiguous land,
28 and structures, other appurtenances, and
29 improvements on the land, used for recycling,
30 reusing, reclaiming, transferring, storing,
31 treating, or disposing of dangerous waste, which,
32 for the purposes of the RCRA, are owned by the
33 U.S. Government and operated by the DOE-RL,
34 excluding land owned by Washington State.
35

36 **b. Has the site been used for agriculture? If so,**
37 **describe.**
38

39 No portion of the 400 Areas has been used for
40 agricultural purposes since 1943.
41

42 **c. Describe any structures on the site.**
43

44 The site is currently an unoccupied area consisting
45 primarily of pavement and packed gravel. The
46 predominant structures in the 400 Area are the FFTF
47 Complex, the Maintenance and Storage Facility

TO BE COMPLETED BY APPLICANT

**EVALUATION FOR
AGENCY USE ONLY**

1 (MASF), and the Fuels Materials and Examination
2 Facility (FMEF).

3
4 The FFTF is a liquid-metal cooled test reactor.
5 Approximately 980,000 liters (260,000 gallons) of
6 bulk sodium coolant are contained within various
7 systems throughout the FFTF.

8
9 The MASF has crane capability and hot cells for
10 maintenance of equipment in support of FFTF and
11 other Hanford Facility programs (e.g., TWRS).

12
13 The FMEF was designed to perform nondestructive and
14 destructive examinations of FFTF and other liquid
15 metal fast breeder reactor program fuels and
16 materials, and has a seismically-qualified fuel
17 storage area. The FMEF has never been used for
18 handling radioactive materials, and currently
19 provides office space for a portion of the 400 Area
20 work force.

21
22 Other miscellaneous 1- and 2-story structures in the
23 400 Area provide offices, training, storage, and
24 maintenance functions.

25
26 d. Will any structures be demolished? If so, what?

27
28 No.

29
30 e. What is the current zoning classification of the
31 site?

32
33 The Hanford Facility is zoned as an Unclassified Use
34 (U) district by Benton County.

35
36 f. What is the current comprehensive plan designation
37 of the site?

38
39 The 1985 Benton County Comprehensive Land Use Plan
40 designates the Hanford Facility as the "Hanford
41 Reservation". Under this designation, land on the
42 Site may be used for "activities nuclear in nature".
43 Nonnuclear activities are authorized "if and when
44 DOE approval for such activities is obtained".

45
46 g. If applicable, what is the current shoreline master
47 program designation of the site?
48

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EVALUATION FOR
AGENCY USE ONLY

1 According to *Washington Administrative Code*
2 173-18-070, the site is not designated.

- 3
4 h. Has any part of the site been classified as an
5 "environmentally sensitive" area? If so, specify.

6
7 The entire Hanford Facility was designated a
8 National Environmental Research Park in 1977 for use
9 as an outdoor laboratory for ecological research.

10
11 The Columbia River is considered by many to be
12 environmentally sensitive. A portion of the Hanford
13 Reach of the Columbia River is being considered by
14 the National Park Service for Wild and Scenic River
15 designation. No portion of the 400 Area is
16 considered to be "environmentally sensitive".

- 17
18 i. Approximately how many people would reside or work
19 in the completed project?

20
21 At the present time it is not known what the
22 personnel needs are for support operation of the SSF
23 and SRF.

- 24
25 j. Approximately how many people would the completed
26 project displace?

27
28 None.

- 29
30 k. Proposed measures to avoid or reduce displacement
31 impacts, if any:

32
33 Does not apply.

- 34
35 l. Proposed measures to ensure the proposal is
36 compatible with existing and projected land uses and
37 plans, if any:

38
39 Does not apply.

40
41 9. Housing

- 42
43 a. Approximately how many units would be provided, if
44 any? Indicate whether high, middle, or low-income
45 housing.

46
47 Not applicable.

48

TO BE COMPLETED BY APPLICANT

1 b. Approximately how many units, if any, would be
2 eliminated? Indicate whether high, middle, or low-
3 income housing.

4
5 None.

6
7 c. Proposed measures to reduce or control housing
8 impacts, if any:

9
10 Not applicable.

11
12 10. Aesthetics

13
14 a. What is the tallest height of any proposed
15 structure(s), not including antennas; what is the
16 principal exterior building material(s) proposed?

17
18 The tallest height of the SSF (based on 90 percent
19 design review) would be approximately 12 meter (41
20 feet). The principal exterior building material
21 would be concrete.

22
23 b. What views in the immediate vicinity would be
24 altered or obstructed?

25
26 None.

27
28 c. Proposed measures to reduce or control aesthetic
29 impacts, if any:

30
31 None.

32
33 11. Light and Glare

34
35 a. What type of light or glare will the proposal
36 produce? What time of day would it mainly occur?

37
38 None.

39
40 b. Could light or glare from the finished project be a
41 safety hazard or interfere with views?

42
43 No.

44
45 c. What existing offsite sources of light or glare may
46 affect your proposal?

47
48 None.

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**EVALUATION FOR
AGENCY USE ONLY**

1 d. Proposed measures to reduce or control light and
2 glare impacts, if any:

3
4 Does not apply.
5

6 **12. Recreation**
7

8 a. What designated and informal recreational
9 opportunities are in the immediate vicinity?

10
11 None.
12

13 b. Would the proposed project displace any existing
14 recreational uses? If so, describe.

15
16 No.
17

18 c. Proposed measures to reduce or control impacts on
19 recreation, including recreation opportunities to be
20 provided by the project or applicant, if any?

21
22 Not applicable.
23

24 **13. Historic and Cultural Preservation**
25

26 a. Are there any places or objects listed on, or
27 proposed for, national, state, or local preservation
28 registers known to be on or next to the site? If
29 so, generally describe.

30
31 No places or objects listed on, or proposed for
32 national, state, or local preservation registers are
33 known to be on or next to the SSF and SRF.
34 Additional information concerning Hanford Site
35 cultural resources can be found in *Hanford Site*
36 *National Environmental Policy Act (NEPA)*
37 *Characterization*, PNL-6415, Revision 6.
38

39 b. Generally describe any landmarks or evidence of
40 historic, archaeological, scientific, or cultural
41 importance known to be on or next to the site.

42
43 There are no known landmarks or evidence of
44 historic, archaeological, scientific, or cultural
45 importance at the SSF and SRF.
46

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**EVALUATION FOR
AGENCY USE ONLY**

1 c. Proposed measures to reduce or control impacts, if
2 any:

3
4 Not applicable.

5
6 **14. Transportation**

7
8 a. Identify public streets and highways serving the
9 site, and describe proposed access to the existing
10 street system. Show on site plans, if any.

11
12 There are no public streets in the vicinity of SSF
13 and SRF site.

14
15 b. Is site currently served by public transit? If not,
16 what is the approximate distance to the nearest
17 transit stop?

18
19 The SSF and SRF are not accessible to the public and
20 is not served by public transit.

21
22 c. How many parking spaces would the completed project
23 have? How many would the project eliminate?

24
25 The project would neither provide nor eliminate
26 parking spaces.

27
28 d. Will the proposal require any new roads or streets,
29 or improvements to existing roads or streets, not
30 including driveways? If so, generally describe
31 (indicate whether public or private).

32
33 No.

34
35 e. Will the project use (or occur in the immediate
36 vicinity of) water, rail, or air transportation? If
37 so, generally describe.

38
39 The Hanford Facility's rail system services the
40 400 Area.

41
42 f. How many vehicular trips per day would be generated
43 by the completed project? If known, indicate when
44 peak volumes would occur.

45
46 No additional vehicular round trips per day to or
47 from the 400 Area would be anticipated as a result
48 of the proposed action. Peak traffic volumes likely

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1 would continue to be at the beginning and end of
2 regular 8-hour working shifts. Many workers likely
3 would be based in the 400 Area, so vehicular trips
4 would be minimized.
5

- 6 g. Proposed measures to reduce or control
7 transportation impacts, if any:

8
9 None.

10
11 **15. Public Services**

- 12
13 a. Would the project result in an increased need for
14 public services (for example: fire protection,
15 police protection, health care, schools, other)? If
16 so, generally describe.

17
18 Existing Hanford Facility services would be
19 sufficient to support the project.
20

- 21 b. Proposed measures to reduce or control direct
22 impacts on public services, if any:

23
24 Not applicable to the proposed project.
25

26 **16. Utilities**

- 27
28 a. List utilities currently available at the site:
29 electricity, natural gas, water, refuse service,
30 telephone, sanitary sewer, septic system, other:

31
32 The 400 Area is an established area of the Hanford
33 Facility. Available utilities include electricity,
34 water, telephone, sanitary sewer, and septic system.
35

- 36 b. Describe the utilities that are proposed for the
37 project, the utility providing the service, and the
38 general construction activities on the site or in
39 the immediate vicinity which might be needed.

40
41 Utilities for both the SSF and SRF would be required
42 on a temporary basis during construction, if at all.
43 The necessary utility service probably would be
44 provided by connecting into existing utility systems
45 in the vicinity.

46
47 The SRF will require sanitary sewer services;
48 however, the SSF will not require steam, potable

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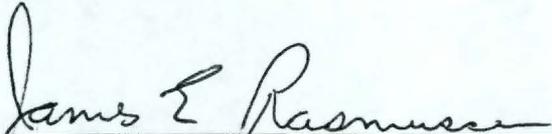
1 water, fire protection water, process water or
2 sanitary sewer services. Electrical power would be
3 provided to service both 120 volts-alternating
4 current (VAC) and 480/277 VAC loads. This
5 electrical power would be obtained from the existing
6 400 Area 451-A substation (13.8 KV) to a new
7 secondary substation (480 VAC). Both the SSF and
8 SRF would be provided with one private automatic
9 exchange (PAX) line from FFTF and one general
10 telephone line from existing 400 Area systems.

1
2
3
4
5

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1 SIGNATURES

2
3 The above answers are true and complete to the best of my knowledge. We
4 understand that the lead agency is relying on them to make its decision.
5

6
7
8
9 
10 _____
11 James E. Rasmussen, Acting Program Manager
12 Office of Environmental Assurance,
13 Permits, and Policy
14 U.S. Department of Energy
15 Richland Operations Office
16

12/19/94

Date

17
18 
19 _____
20 W. T. Dixon, Manager
21 Environmental Services
Westinghouse Hanford Company

12/15/94

Date

APPENDIX C

SUMMARY OF NOTICES OF COMPLIANCE VIOLATIONS AND THE
U.S. DEPARTMENT OF ENERGY, RICHLAND OPERATIONS OFFICE RESPONSES

1
2
3
4
5
6

1
2
3
4
5 This summary is prepared and maintained by Westinghouse Hanford Company -
6 Environmental Services.

12/19/94

Enforcement Actions

Page 1

Facility	Date Received	Subject	Category	Status	Agency	Summary	Comments
Hanford	5/03/84	RCRA	Formal	Closed	Ecology	State Order DE 84-267 required the U.S. Department of Energy (DOE) to allow the state to access the Hanford Site to conduct formal compliance assessments of nonradioactive hazardous waste facilities.	The first comprehensive compliance inspection of Hanford by the State of Washington occurred on June 11-14, 1985. Since then, Ecology has conducted numerous formal compliance assessments of the nonradioactive hazardous waste facilities.
Hanford	12/26/84	RCRA	Formal	Closed	Ecology	State Order DE 84-720 covered several interim status compliance actions associated with nonradioactive hazardous waste facilities.	The action to achieve compliance with this order is complete. Part A applications for the facilities in question were submitted in July 1985. This date met the schedule specified in the order.
Hanford	1/29/85	SWPCA	Formal	Closed	Ecology	State Order DE 85-130 covered alleged violations of state water quality statute Revised Code of Washington (RWC) 90.48 related to Plutonium Finishing Plant (PFP) chemical sewer releases.	DOE did not acknowledge the applicability of state statutes to its activities at that time. Therefore, no specific steps were taken in response to the order, although a discussion of the circumstances was provided as a matter of comity.
Hanford	1/15/86	--	Formal	Closed	Ecology	State Order DE 85-677 covered alleged violations of state water quality statute RCW 90.48 related to Plutonium Uranium Extraction (PUREX) chemical sewer releases.	By May 1, 1986, all facility modifications and procedural changes specified in the order were in place.
Hanford	2/06/86	--	Formal	Closed	Ecology/EPA	State Orders DE 86-132 and DE 86-133 and EPA Order 1085-10-07-3008 (followed by Consent Order with the State, DE 86-133) covered RCRA waste accumulation, groundwater monitoring, and interim status closure plans.	DOE, Richland Operations Office (RL), submitted a plan to Ecology on March 7, 1986, assuring that the storage of dangerous wastes was conducted in accordance with state regulations. Groundwater monitoring networks were installed at various facilities. The groundwater sampling programs associated with these groundwater monitoring networks are in compliance with RCRA. The required closure/post-closure plans were submitted to Ecology in November 1985.

Facility	Date Received	Subject	Category	Status	Agency	Summary	Comments
Hanford	11/21/86	TSCA	Formal	Closed	EPA	A Complaint and Notice of Opportunity for Negotiation was issued against RL alleging violations of provisions for use of hydraulic systems in the PCB regulations. The complaint followed a May 21, 1986, inspection by the U.S. Environmental Protection Agency (EPA) that was conducted to determine whether activities were in compliance with PCB regulations.	RL responded to the Complaint on January 7, 1987, with verification that the 3760 Building reservoir was drained and refilled with new, non-PCB hydraulic oil on December 4, 1986. RL stated in the letter that they believed no further action or documentation was required.
Hanford	10/30/87	RCRA	Formal	Closed	Ecology	State Order DE 87-295 covered state dangerous waste releases (mixed waste) to the 216-A-36B Crib.	All discharges were stopped and the crib was permanently closed to use. Wells drilled in accordance with dates set forth in the order (June 1, 1986) and regular sampling are ongoing. The part A permit for the facility was submitted February 2, 1988.
Hanford (WHC)	4/11/89	RCRA	Formal	Closed	Ecology	Ecology notified RL and Westinghouse Hanford Company (WHC) of a Notice of Violation within three areas based on their April 10-11, 1989, inspection of B Pond and the Nonradioactive Dangerous Waste Landfill.	Three findings were identified: (1) the need to construct at least a continuous single-strand rope fence with warning signs around B Pond and each of the three associated lobes; (2) the need to repair a 25-foot breach in the security fence surrounding the Nonradioactive Dangerous Waste Landfill; and (3) the need to evaluate the wooden pier over the 216-A-29 Ditch for stability and to establish load limits for its use. The single-strand rope fence with appropriate warning signs has been installed around B Pond and its three lobes. The fence at the Nonradioactive Dangerous Waste Landfill has been repaired. The wooden pier over the 216-A-29 Ditch has been taken out of service. "DANGER - KEEP OFF" signs have been posted, and the structures have been barricaded.

Facility	Date Received	Subject	Category	Status	Agency	Summary	Comments
Hanford (WHC)	6/12/89	RCRA	Formal	Closed	Ecology	Ecology notified RL and WHC of a Notice of Violation within two areas based on their June 12, 1989, inspection of the 183-H Basins and 216-S-10 Pond and Ditch.	<p>Two findings were identified: (1) the need to construct at least a continuous single-strand rope fence with appropriate warning signs around the 216-S-10 Pond and Ditch before August 15, 1989; and (2) the need to stabilize two corroded and leaking drums containing mixed waste located at the 183-H Basins.</p> <p>A single-strand barrier rope was installed with the appropriate warning signs around the 216-S-10 Pond and Ditch. The contents of the leaking drums were removed and repackaged in appropriately prepared drums. An inspection was conducted on the other drums containing dangerous waste at the 183-H facility and no other irregularities were noted. The Central Waste Complex, which receives 183-H dangerous waste drums, was inspected and no irregularities were noted. An analysis also was conducted on the probable cause of the corrosive material found on the drums. The results were presented to Ecology.</p>
Hanford (WHC)	7/20/89	RCRA	Formal	Closed	Ecology	Ecology notified RL and WHC of a Notice of Violation within three areas based on their July 20, 1989, inspection of the 216-A-29 Ditch, 216-B Pond, and the Central Waste Complex.	<p>Three findings were identified: (1) the need to construct, at a minimum, a continuous single-strand chain fence with appropriate warning signs around the 216-A Ditch by September 30, 1989; (2) four radiation warning signs were found unsecured on the ground near the 216-A-29 Ditch and 216-B Pond facilities; and (3) 10 waste drums at Central Waste Complex were found to have exceeded the 90-day accumulation period while at the generating facility.</p>

Facility	Date Received	Subject	Category	Status	Agency	Summary	Comments
							<p>A continuous single-strand barrier was installed around the 216-A-29 Ditch and 216-B Pond. The unsecured signs have been reposted. Periodic inspections will be conducted to identify necessary corrective actions such as unsecured signs.</p> <p>The 10 waste drums that exceeded the 90-day accumulation period were identified as originating from PFP. These drums were partially characterized and transferred to the Central Waste Complex for proper storage. A letter identifying the dangerous and mixed waste satellite and less-than-90-day accumulation areas on the Hanford Site was transmitted to Ecology.</p>
Hanford (WHC)	4/25/90	HMTA	Formal	Closed	DOT	On April 25, 1990, the Department of Transportation issued a Federal Railroad Administration Probable Notice of Violation against WHC for violating the Hazardous Materials Transportation Act, and fined WHC \$3,000.	The procedures were corrected to the satisfaction of DOT and, after negotiations, the fine was reduced to \$2,100, which was paid by WHC.
Hanford (WHC)	12/10/90	RCRA	Formal	Closed	Ecology	On December 10, 1990, Ecology notified RL and WHC of a Notice of Noncompliance for returning 68 problem drums from the Central Waste Complex to the generator, the 183-H Basins. Ecology did not take any formal action, but requested that the 68 drums be repackaged and returned to the Central Waste Complex before December 25, 1990.	RL received concurrence from Ecology to extend the deadline to January 15, 1991. The repackaging of the drums was initiated on December 18, 1990; however, this effort was hampered by unfavorable weather conditions. Eight additional working days were lost due to high winds, snow, and rain. All 68 of the problem drums were subsequently repackaged and returned to the Central Waste Complex by January 25, 1991. Ecology was both verbally notified by WHC and officially notified by RL of this additional delay.

Facility	Date Received	Subject	Category	Status	Agency	Summary	Comments
Hanford (WHC)		CAA	Informal	Closed	DOH	1991 PFP Technical Review	A letter from DOH to RL on September 19, 1994, formally closed this item.
Hanford (WHC)		NPDES	Informal	Closed	Fisheries	In March 1991, RL began construction of a new filter backwash pond in the 300 Area. A component of this construction project was a new outfall to the Columbia River. Army Corps of Engineers' approval was secured for the outfall. An NPDES permit has been applied for, and all the necessary NEPA documentation is in place; however, RL failed to apply for the necessary hydraulic project permit approval from the Washington State Department of Fisheries (Fisheries) and for a temporary water quality modification permit from Ecology before construction of the outfall.	<p>Fisheries performed an inspection of the construction project in June 1991. As a result of the inspection, Fisheries recorded this activity as a violation because a portion of the construction was performed below the high-water mark on the Columbia River without a permit.</p> <p>RL was instructed by Fisheries to do the following: (1) place a screen on the outlet of the outfall to prevent fish from trying to swim up the pipe; (2) repair the damage to the vegetation that occurred during construction; and (3) contact Ecology on whether a water quality modification permit should be applied for after construction is complete.</p> <p>A screen was placed on the outfall in December. A new hydraulic project permit has been received to allow for new trees to be planted. Trees were planted to replace the damaged vegetation during March. Ecology has indicated construction of the outfall has already occurred.</p> <p>Although this was considered a violation, no citation was issued to RL or its contractors. Fisheries also stated that there was no significant environmental impact due to the construction of this outfall.</p>

Facility	Date Received	Subject	Category	Status	Agency	Summary	Comments
Hanford (WHC)	5/14/92	RCRA	Informal	Open	Ecology	Ecology issued an inspection report for Tank 241 -SY-101 that alleges RL was in violation of State Dangerous Waste Regulations (WAC 173-303). These violations included the failure to inspect monitoring systems, failure to provide and operate adequate leak detection, failure to allow inspectors access to training records, and failure to properly identify personnel in the training plan.	RL has issued three responses to the state regarding the alleged violations according to the schedule in the inspection report. RL has completed all corrective actions as required by Ecology. No formal notification indicating satisfactory completion of the corrective actions has been received by Ecology.
Hanford (WHC)	7/16/92	RCRA	Informal	Closed	Ecology	Ecology issued an inspection report for an overflow of PUREX tank F18. The primary violations that were alleged included lack of spill reporting, failure to inspect monitoring systems, and lack of adequate secondary containment and overfill prevention controls.	A letter was sent April 28, 1993, from Ecology to RL and WHC stating formal closure of this item.
Hanford (WHC)	8/05/92	CAA	Informal	Open	DOH	DOH conducted an audit of 200 East Area Tank Farms during March and April 1992 and identified 21 findings, 10 observations, and 9 best management practices related to airborne radioactive emissions from the tank farms.	The primary findings centered around potential shortcomings in compliance with the reasonably available control technology engineering standard. RL has completed corrective actions to close these findings. A response was sent to DOH in November 1992 (correspondence number 9205905R1). On September 2, 1994, DOH sent a letter to RL indicating that 10 findings were still open, and that the remaining observations (now called findings Level IV) and BMPs were closed. The letter requested that the remaining open items be completed by November 1, 1994.
Hanford (WHC)	9/22/92	RCRA	Informal	Closed	Ecology	Ecology issued a compliance letter for T Plant that alleges RL and WHC were in violation of WAC 173-303. These violations included failure to meet waste generator and accumulation standards such as recordkeeping inspections, use and	RL and WHC have issued a response according to the schedule described in the inspection report. Most corrective actions have been completed. Ecology has noted T Plant's efforts to resolve their violations

Facility	Date Received	Subject	Category	Status	Agency	Summary	Comments
Hanford (WHC)	9/29/92	CAA	Informal	Closed	DOH	management of containers, waste designation, and spills and discharges. DOH issued a report detailing 15 action items from an investigation concerning an unresolved safety question at the B Plant main stack ventilation system.	and has officially closed this enforcement action. These action items included providing a response to the following: improper notification of DOH for emission control system modifications, potentially inadequate emission control system, and improper ventilation sealing systems. A response was provided by RL within the designated 45-day time period. Five of the action items have been completed to the satisfaction of DOH. Closure of the remaining 10 action items will occur after completion of corrective actions and ongoing negotiations with DOH. A followup inspection occurred on June 22, 1994, and on September 16, 1994, DOH sent a letter to RL formally closing this inspection.
Hanford (WHC)	10/06/92	CAA	Informal	Closed	DOH	DOH issued a report for an audit performed at the Uranium Trioxide Facility that identified five minor findings.	These findings were related to sampling data collection, data reporting, and monitoring equipment calibration. RL issued a response within the designated 45-day time period. Two of the findings have been closed to the satisfaction of DOH.
Hanford (WHC)	10/23/92	TSCA	Formal	Closed	EPA	The EPA issued a Notice of Noncompliance based on an inspection conducted in September 1991. One violation related to the cleanup of a PCB spill was identified.	DOH sent a letter to RL (correspondence #9401923) dated February 11, 1994, to close the remaining items identified during the surveillance. On November 13, 1992, RL responded to the Notice of Noncompliance. RL stated in the response that the cleanup of the PCB spill was completed on September 28, 1991, not October 1, 1991, as alleged in the Notice of Noncompliance. RL also outlined corrective

Facility	Date Received	Subject	Category	Status	Agency	Summary	Comments
							actions to ensure that cleanup of PCB spills are initiated and completed within the required 48 hours.
Hanford (KEH)	10/27/92	RCRA	Informal	Closed	Ecology	Ecology issued a compliance letter to RL and Kaiser Engineers Hanford (KEH) alleging violations of WAC 173-303. These violations included failure to meet the waste generator and accumulation standards such as waste designation, personnel training, recordkeeping, and the use of a management of containers.	On November 25, 1992, EPA sent a letter to RL stating they were satisfied with RL's response and corrective actions and closed the issue. RL and KEH issued a response within the designated time period. A letter mailed on January 14, 1993, from Ecology to RL formally closed this item.
Hanford (PNL)	10/30/92	RCRA	Informal	Closed	Ecology	Ecology issued a compliance letter for the 305-B storage facility alleging RL and Pacific Northwest Laboratory (PNL) are in violation of WAC 173-303.	The violations included improper waste designation, an inadequate contingency plan, an inadequate waste inventory, improper container labeling, and improper storage of waste according to their fire code. RL and PNL issued a response that disputed all findings. These findings were resolved in a letter sent from Ecology to RL on April 7, 1993.
Hanford (WHC)	11/12/92	RCRA	Informal	Closed	Ecology	Ecology issued a letter alleging that RL and WHC are in violation of WAC 173-303. These violations included leak detection, lack of secondary containment, delayed notification and reporting, and inadequate personnel training at the single-shell tanks.	Ecology also prepared a Tri-Party Agreement change control form establishing enforceable milestones to address the violations. RL and WHC have issued a response requesting that negotiations begin to address the proposed milestones.
Hanford (WHC)	1/15/93	RCRA	Informal	Closed	Ecology	Ecology issued a compliance letter for issues related to the storage of mixed waste in the 241-SY-101 Tank Farm.	The violations noted included exceeding the waste accumulation limit of 120 days, and compliance problems associated with generator waste storage. RL and WHC have issued a formal response. No additional actions are

Facility	Date Received	Subject	Category	Status	Agency	Summary	Comments
Hanford (WHC)	2/02/93	CAA	Formal	Closed	DOH	DOH issued a Notice of Violation (NOV) for radioactive air emission issues related to the proposed fuel encapsulation activities at the 100-KE fuel storage basins.	necessary. The NOV stated that RL and WHC have initiated work that directly supports fuel encapsulation without approval of DOH. The NOV formally directed RL and WHC to stop all work at the 100-KE Basins immediately. RL and WHC formally responded to the NOV, and a Notice of Construction permit was issued in the fall of 1993.
Hanford (WHC)	2/03/93	CAA	Formal	Superce	EPA	EPA issued a Compliance Order to RL and its contractors alleging noncompliance with the National Emission Standards for Hazardous Air Pollutants for radionuclides.	EPA and RL negotiated a Federal Facility Compliance Agreement (FFCA) on February 7, 1994, to allow RL to confirm compliance or meet the compliance requirements of 40 CFR 61, Subpart H. The FFCA superseded the compliance order and this will no longer be tracked as an open item.
Hanford (WHC)	3/10/93	RCRA	Formal	Open	Ecology	Ecology issued an Order and Notice of Penalty Incurred and Due for failure to adequately designate approximately 2,000 containers of solid waste.	The Notice of Penalty stipulated a penalty of \$100,000. RL disputed portions of the Order and Notice of Penalty. RL and Ecology have agreed to resolutions to the disputed portions, and these resolutions have been agreed to by the Washington State Pollution Control Hearing Board, which issued a settlement agreement modifying the Order and Notice of Penalty. The settlement agreement for the Compliance Order required submittal of a Waste Analysis Plan (WAP) to confirm or complete the designation of the waste in question. Extensive negotiations regarding the content of the WAP occurred between RL and Ecology, and final approval was granted by Ecology on November 1, 1993. Confirmation or completion of the waste designation, following the

Facility	Date Received	Subject	Category	Status	Agency	Summary	Comments
							process established by the WAP, must be completed by September 1, 1994.
							Negotiations regarding an alternative to the payment of the \$100,00 penalty resulted in an agreement that allows RL to set up an Environmental Protection Scholarship in the amount of \$40,000 at Columbia Basin College, and payment to PNL and the Washington Department of Wildlife to plan for and carry out a sagebrush revegetation effort on the Hanford Arid Lands Ecology Reserve.
Hanford (WHC)	5/12/93	RCRA	Informal	Open	Ecology	Ecology issued a compliance letter for alleged violations related to a spill of ethylene glycol at the 309-E Building to the 300 Area Process Trench.	The alleged violations were related to immediate reporting of the incident and access to information. RL prepared a response to this incident within the required time period. RL has completed all corrective actions as required by Ecology. No formal notification indicating satisfactory completion of the corrective actions has been received from Ecology.
Hanford (WHC)	5/24/93	RCRA	Informal	Open	Ecology	Ecology issued a compliance letter for alleged violations of various regulations related to tank system compliance at Tank 241-BX-111.	RL has prepared responses to the letter and has committed to pumping the remaining liquids from the tank. Liquid pumping was initiated in October 1993 and initially was expected to be completed in January 1994. This date was extended to April 30, 1994.
							After all the liquid was believed to be pumped, pictures were taken and a pool of free liquid was found to be remaining. This was pumped, and it amounted to about 5,000 gallons of supernatant. As of July 12, 1994, all the supernatant liquid had been removed and pumping was continuing on the

Facility	Date Received	Subject	Category	Status	Agency	Summary	Comments
							interstitial liquid. WHC expected this last stage of pumping to be done by the end of July.
Hanford (WHC)	7/09/93	RCRA	Informal	Closed	Ecology	Ecology issued a compliance letter for alleged violations of the generator accumulation standards of WAC 173-303-200 at T Plant.	New photographs were taken after this final pumping, and again liquid (estimate approximately 10,000 gallons) was seen in the tank. Additional pumping is planned to occur after further integrity testing of the transfer line. These alleged violations occurred during the repackaging of unknown containers that were generated in Tank Farms. RL has completed all corrective actions as required by Ecology. Additional correspondence from Ecology requested more information related to six repackaged waste containers. On December 2, 1993, RL submitted this information to Ecology, and Ecology has indicated satisfaction with this response.
Hanford (WHC)	8/24/93	RCRA	Informal	Open	Ecology	Ecology was notified on August 12, 1993, of a request to extend the 90-day accumulation period for T Plant waste because of the Tank Farms safety stand down. Ecology denied the extension because they believed the necessary requirements were not satisfied in a letter they received August 18, 1993, from RL.	On September 22, 1993, approval of the 30-day extension was received. The tank car was shipped on September 17, 1994, as agreed to with Ecology. This item is now closed.
Hanford (WHC)	10/15/93	RCRA	Informal	Closed	Ecology	Ecology issued a compliance letter for alleged violations of the transporter requirements of WAC 173-303-190 at the PUREX Facility.	These alleged violations occurred while the waste was being stored in a tank trailer pending approval from Idaho to accept the waste. RL transmitted a letter to Ecology on June 28, 1994 (9404281), stating that items in the compliance letter are closed. RL now considers this item closed.

Facility	Date Received	Subject	Category	Status	Agency	Summary	Comments
Hanford (WHC)	10/18/93	RCRA	Informal	Closed	Ecology	Ecology issued a compliance letter for alleged violations of the treatment, storage, and disposal requirements of WAC 173-303 at PUREX.	The primary violations involved not removing liquid from secondary containment within 24 hours and storing wastes in a unit not permitted for storage. These alleged violations occurred while waste was being stored in Tank F18 and Tank F16. Transfer of waste from Tank F16 and Tank F18 to Tank Farms was initiated on October 22, 1993. A total of six transfers were required to remove the waste from Tank F16. The final transfer from Tank F16 was completed on November 1, 1993. RL provided Ecology with a letter on December 14, 1993, to document that Tank F16 was emptied. The letter stated that "with the removal of waste from Tank F16 completed, RL considers this action closed."
Hanford (WHC)	10/18/93	RCRA	Informal	Closed	Ecology	Ecology issued a compliance letter for alleged violations of the generator accumulation requirements of WAC 173-303-200.	The violations resulted from a reclassification of four process tanks at the Plutonium Reclamation Facility (PRF) as waste accumulation tanks. Ecology required the implementation of a waste tracking system, that tanks be labeled as hazardous waste accumulation tanks, and providing direction to PRF Operations regarding the regulatory status of PRF waste tanks. The first item has been completed. RL sent a letter to Ecology in late November 1993, which requested information on two exclusions in WAC 173-303-071(3) that may allow reclassification of PRF waste tanks to non-RCRA status. On January 13, 1994, Ecology responded with a letter that stated the above-mentioned tanks were process tanks and, therefore, not

Facility	Date Received	Subject	Category	Status	Agency	Summary	Comments
Hanford (WHC)	10/26/93	RCRA	Informal	Closed	Ecology	Ecology issued a compliance letter for alleged violations of the generator accumulation requirements of WAC 173-303-200.	<p>subject to generator waste accumulation requirements under the WAC. The compliance letter resulted from a Hanford-wide inspection of temporary storage and satellite accumulation areas. Several findings and recommended corrective actions were noted in the inspection. WHC has completed these corrective actions.</p> <p>At the 1164 Facility, one finding was identified regarding container records. On November 5, 1993, a copy of the records was filed at the facility. The final report to close this item was issued on December 16, 1993. A letter from Ecology on February 17, 1994, formally closed this item.</p> <p>At the 1713-H satellite storage area, three findings were identified, and two findings at the 321 Facility were identified. With regard to the 1713-H Facility, RL sent a letter to Ecology on November 15, 1993, listing the corrective actions taken and stating that RL believed these actions "fully resolve the inspection findings." With regard to the 321 Facility, this was a temporary facility that has been closed, thereby eliminating this issue.</p>
Hanford (WHC)	10/29/93	CAA	Informal	Closed	DOH	DOH issued a report of a surveillance conducted at PUREX during August 1993 that identified one finding related to a lack of auditable procedures and three best management practices (BMP), one related to tracking sampling instrument serial numbers by location, and two related to clarifying sampling procedures.	The finding was issued because the health physics procedure document, WHC-IP-0718, which had recently replaced WHC-IP-0692, did not contain PUREX-specific procedures. PUREX Health Physics implemented a field change on November 9, 1993, to incorporate the PUREX-specific procedures into the -0718 document.

Facility	Date Received	Subject	Category	Status	Agency	Summary	Comments
Hanford (WHC)	11/17/93	RCRA	Informal	Closed	Ecology	On November 17, 1993, Ecology issued a compliance letter alleging inadequate controls for preventing nonroutine releases of hazardous substances to the environment from WHC-managed facilities in the 300 Area. The subject letter was received following a release of ethylene glycol to the 300 Area Process Sewer from the 309 Building in October 1993.	<p>A followup inspection scheduled for July 18, 1994, to determine resolution of this issue was canceled since DOH had indicated they were satisfied with the corrective action. Closure of this finding was documented in a telephone memorandum on October 17, 1994. RL requested WHC to submit a written response to the subject letter by December 22, 1993 (this date was amended to December 30, 1993).</p> <p>On December 30, 1993, WHC responded to RL with a letter that provided an assessment of the potential for non-routine releases of hazardous substances to the environment from the 300 Area WHC- and KEH-managed facilities. Where hazardous materials were present, the control systems for preventing releases to the environment were evaluated. If the control systems were found to be inadequate, plans and schedules to upgrade the systems were developed. The planned upgrades are scheduled for completion before the start of the 300 Area Treated Effluent Disposal Facility, projected for December 1994. The assessment provided to RL included descriptions of each affected facility and the action required to correct the situation.</p> <p>Ecology has said this issue was satisfied with the submittal of RL's corrective actions, but indicated a followup inspection to verify compliance could occur.</p>

Facility	Date Received	Subject	Category	Status	Agency	Summary	Comments
Hanford (WHC)	11/17/93	RCRA	Informal	Closed	Ecology	Ecology issued a compliance letter for alleged violations in implementing the WAP.	On November 17, 1993, Ecology met with RL to discuss alleged deviations from Section 1.4 of the WAP, which requires RL and Ecology to approve changes. Also discussed was a concern regarding waste management training, a request for desk instructions, and a list of responsible persons. The information originally was requested for December 1, 1993. Ecology agreed to delay the response until December 8, 1993, and RL issued the response on that date. The response states that all proposed changes to the WAP will be communicated to Ecology as requested. The letter also addressed the other concerns Ecology had, and made recommendations to assemble a technical team to deal with issues surrounding implementation of the WAP before they became concerns.
Hanford (WHC)	12/06/93	CAA	Informal	Open	DOH	DOH issued a compliance letter following a surveillance on October 6, 1993, at the Fast Flux Test Facility (FFTF), which identified two findings and two BMPs. The letter requested a response from RL within 45 days.	On January 5, 1994, Ecology closed this item. One of the findings was that calibration tags were not on monitoring instrumentation, and the other finding noted that some monitoring instruments had difficulty remaining in calibration because of vendor problems. One BMP stated that the Reactor Service Building had limited control and monitoring technologies to detect or control a release. The other BMP stated that the sampler flow measurement equipment and procedures created uncertainty in the accuracy of the measurement. Recommended corrective actions were provided in the compliance letter. RL provided DOH a response to the findings

Facility	Date Received	Subject	Category	Status	Agency	Summary	Comments
Hanford (WHC)	12/07/93	RCRA	Informal	Open	Ecology	Ecology issued a compliance letter for allegations that improvements (target actions) to be performed at T Plant as part of the Dangerous Waste Part A Permit Application were found to be either incomplete or unsatisfactory during a December 2, 1993, inspection.	and BMPs on March 2, 1994. This target action, "Implement Periodic Visual Inspection and Static Leak Test Program for 2706-T and 211-T Tanks," was to be completed by October 1993. Ecology has required implementation of effective visual inspection and leak test programs for the 2706-T and 211-T sumps by December 15, 1993. Ecology also required the completion of three corrective actions by January 15, 1994; specifically, repair of the backflow preventer leaking to the 2706-T sump, repair of the leak detection device for 2706-T, and report on the progress of installing or instituting leak detection for the 211-T sump.
Hanford (WHC)	12/13/93	RCRA	Informal	Closed	Ecology	Ecology issued a compliance letter for an inspection conducted November 18-22, 1993, at the Transuranic Waste Storage and Assay Facility (TRUSAF) to determine compliance with interim status requirements under WAC 173-303, and to status current activities with respect to the Dangerous Waste Part B Permit Application.	This item was put on hold while the alleged violations were investigated. On November 7, 1994, Ecology transmitted a letter to RL and WHC that followed a followup inspection on October 18, 1994. No violations were noted. Alleged violations included (1) failure to maintain emergency equipment in accordance with the facility contingency and emergency plan, (2) failure to maintain operating records in a manner sufficient to locate wastes within the facility, (3) failure to label containers with hazardous waste labels or in a manner to adequately identify major risks associated with the contents of the containers, and (4) failure to store containers within a compliant secondary containment system.

Facility	Date Received	Subject	Category	Status	Agency	Summary	Comments
							<p>The compliance letter stated that RL and WHC needed to correct these findings by March 18, 1994.</p> <p>On February 4, 1994, RL sent a letter to Ecology providing a status of the four corrective actions. RL considers the first two items closed. RL requested an extension to April 30, 1994, for the third item, and stated that the fourth item would be completed by March 14, 1994.</p> <p>A unit managers' meeting was held on June 1, 1994, which provided information indicating the final two items have been completed.</p> <p>On October 10, 1994, Ecology sent a letter to RL formally closing this item.</p>
Hanford (WHC/PNL)	12/17/93	CAA	Informal	Open	DOH	DOH conducted an audit of air monitoring instrumentation adequacy and calibration on June 28 - July 2, 1993. DOH believes past audits and surveillances have identified instrumentation out of calibration.	<p>The audit revealed two findings, five observations, and five BMPs. DOH requested RL's response, including a corrective action plan, by February 20, 1994.</p> <p>On February 16, 1994, WHC provided RL with a response to DOH (#9451044D). The response stated that one finding would be resolved by March 18, 1994, and the other by April 30, 1994. Completion dates were provided for the findings and BMPs not already resolved.</p> <p>On September 5, 1994, DOH sent a letter to RL stating closeout of all the open items but one finding. DOH is requesting response to this last item by November 1, 1994.</p>

Facility	Date Received	Subject	Category	Status	Agency	Summary	Comments
Hanford (WHC)	1/27/94	RCRA	Informal	Open	Ecology	Ecology issued a compliance letter for alleged violations identified during an inspection on December 9, 1993, at the Hanford Fire Department to determine compliance with contingency plan requirements under WAC 173-303 for hazardous and/or mixed waste facilities.	<p>The sections of the WAC that RL and WHC were alleged to be out of compliance with are 173-303-350(2), -350(3), and -350 (4). The compliance letter stated that contingency plans for 2715EA, 1177, 321, 384, and 284W did not incorporate the WAC requirements. Additionally, the letter stated that copies of contingency plans for 284E, 284W, and 2715EA were not kept at the Hanford Fire Department as required, and they were not on the Hanford Local Area Network (HLAN).</p> <p>The compliance letter requested corrective actions to be complete by April 15, 1994.</p> <p>On March 23, 1994, WHC provided RL with a letter for Ecology in response to these allegations, and RL sent the letter to Ecology on March 28, 1994. The letter presents a revised RL/WHC contingency planning program, and outlines the corrective actions RL will take by May 31, 1994, to close this item.</p> <p>WHC/RL completed corrective actions as planned according to schedule.</p> <p>Ecology plans to conduct another inspection in the future to verify compliance; therefore, this item will remain open.</p>
Hanford (WHC/PNL)	2/01/94	CAA	Informal	Open	DOH	DOH officials conducted an audit on August 23, 1993, of the 300 Area emission units.	<p>The audit resulted in three observations (now referred to as findings level IV): (1) carbon absorber units inspected (Building 340) did not have test ports or indication (tags) of efficiency test performance; (2)</p>

Facility	Date Received	Subject	Category	Status	Agency	Summary	Comments
Hanford (WHC)	2/23/94	RCRA	Informal	Closed	Ecology	<p>Ecology issued a compliance letter alleging violations of facility recordkeeping requirements for the Backlog Waste Program.</p> <p>The alleged violations resulted from an Ecology inspection on February 18, 1994, when Ecology requested copies of training records.</p>	<p>the electric pre-heater upstream of the main filter bank for the 340 Building was not operating to limit humidity; and (3) calibration was not indicated (tags) on gauges used to monitor performance of HEPA filters (WHC and PNL facilities). Corrective actions were included in the letter report.</p> <p>RL provided a letter to DOH on December 1, 1994, responding to the three items. Corrective actions also were provided. The alleged violations are summarized below.</p> <p>1) RL and WHC "failed to make training records available for inspection...to verify that employees involved in the backlog waste program have received training..."</p> <p>2) RL and WHC "failed to make training records required by Chapter 173-303-330 WAC available for inspection at all reasonable times per Chapter 173-303-380(3[a])."</p> <p>Ecology's corrective actions stated in the "voluntary compliance letter" involve providing the requested training records to Ecology and then maintaining the appropriate training records in the 200 West Area, and keeping them available for future inspections.</p> <p>On April 14, 1994, Ecology sent a letter to RL and WHC stating that their investigation of training record accessibility for the Backlog Waste Program was completed and the</p>

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Hanford (RL/COE)	3/09/94	RCRA	Formal	Closed	Ecology	Ecology issued an Order (No. DE 94NM-063) and Notice of Penalty incurred and due (No. DE 94NM-062) against the U.S. Army Corps of Engineers (COE) for disposing dangerous waste at the Richland Landfill, and against DOE for not providing adequate dangerous waste training to COE employees.	<p>issue has been closed.</p> <p>Ecology has assessed a penalty of \$9,500 against DOE and a \$6,000 penalty against COE. The fines stem from the accidental dumping of dangerous waste at the landfill as part of the cleanup activity ongoing at the North Slope. The incident occurred late in 1993.</p> <p>On April 15, 1994, Ecology sent a letter to RL and COE stating satisfaction that the corrective items identified in the order had been completed, and approved the restart of dangerous waste management work on the North Slope. Ecology also requested in the letter that before the generation or potential generation of hazardous or mixed waste at identified past-practice waste sites, that Waste Control Plans be submitted to them for approval. Ecology stated that the "letter serves as a notice of completion of Order requirements," except for the ongoing requirements of the Waste Control Plans, and stated that the "entire case will be resolved upon payment" of the Penalty.</p>
Hanford (WHC)	4/07/94	RCRA	Informal	Closed	Ecology	Ecology issued a compliance letter to RL and WHC alleging noncompliance with WAC 173-303-330, Personnel Training.	<p>The allegations followed an inspection conducted at tank farms March 17-18, 1994, to determine compliance with generator requirements. The inspector stated that at the time of the inspection, a random sample of training records was selected and that approximately half of those were found to be deficient. The action item in the letter called for RL and WHC to review the training of tank farms personnel by July 1, 1994, and to complete and document all required</p>

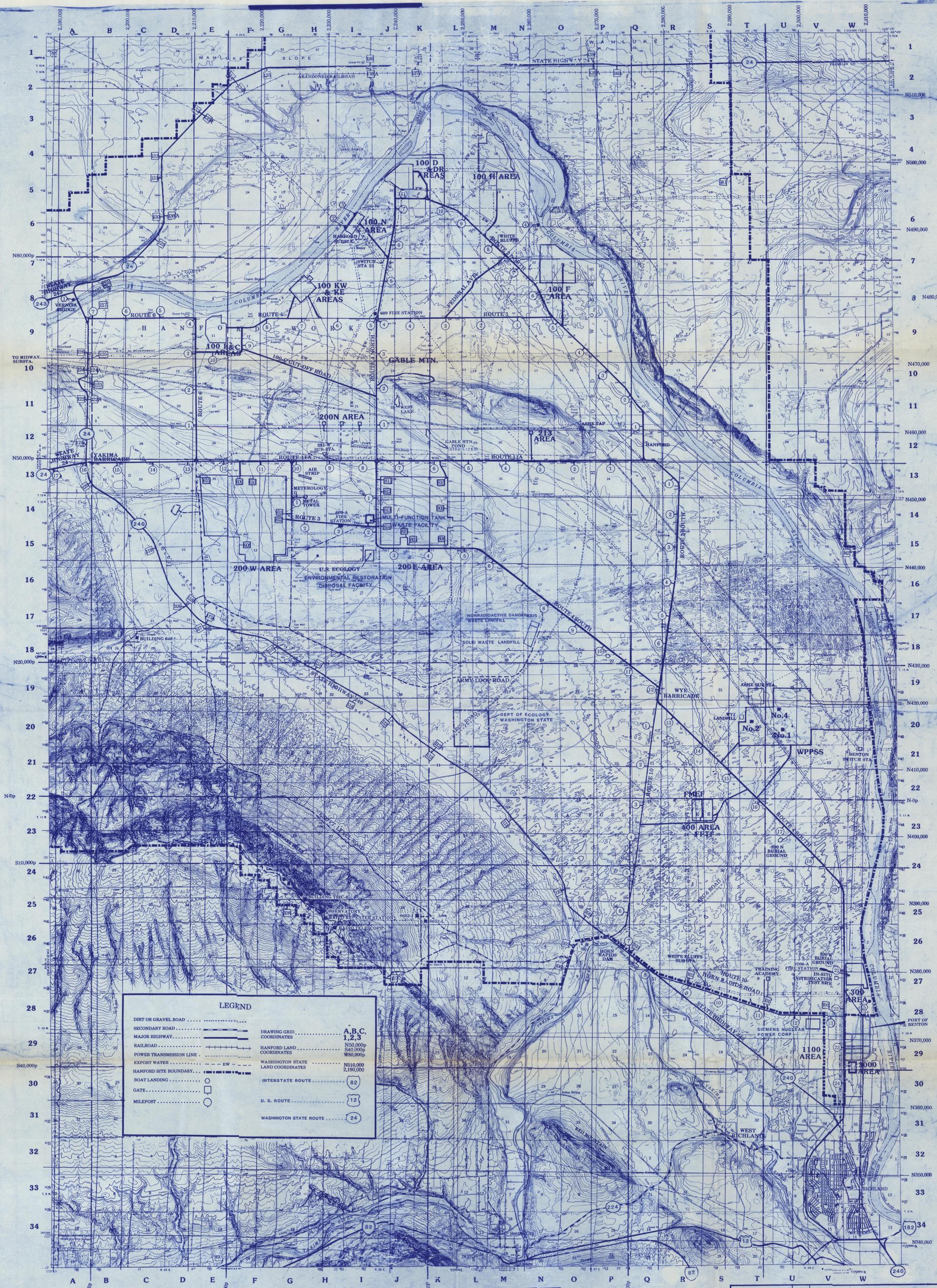
Facility	Date Received	Subject	Category	Status	Agency	Summary	Comments
							training.
							On June 29, 1994, RL sent Ecology a letter (9404279) stating that 95 percent of the tank farms personnel had completed the required training, and that all remaining personnel would be limited to work not directly affecting dangerous waste management activities until their training was completed.
							Ecology conducted a follow-up inspection on July 19, 1994, and indicated satisfaction with this issue and said they consider this closed.
Hanford (WHC)	4/14/94	RCRA	Informal	Open	Ecology	Ecology issued a compliance letter to RL and WHC on April 14, 1994, which followed an inspection conducted on February 7-8, 1994, to assess completion of Milestones 21, 22, and 23 of the Tri-Party Agreement. The compliance letter alleged seven violations of WAC 173-303: (1) WAC 173-303-300, General Waste Analysis; (2) -380, Facility Recordkeeping; (3) -310, Security; (4) -630, Use and Management of Containers; (5) -320, General Inspection; (6) -350, Contingency Plan and Emergency Procedures; and (7) -640, Tank Systems.	Ecology's concerns were centered around RCRA interim status requirements being relaxed on the facilities that were inspected, which are scheduled for closure or are undergoing a change in mission. Ecology's concerns are that relaxed management of hazardous waste during these periods may cause a threat to human health or the environment. Five corrective actions were included in the letter, three to be completed within 30 days, two within 60 days, and one within 180 days.
							On July 26, 1994, Ecology sent a letter to RL stating that four of the five items had been satisfactorily completed. The fifth item, to construct a barrier around 100-D Ponds, was discussed at the unit managers' meetings in July. Ecology stated in the letter referenced in this paragraph that the barrier was dependent on the hazard posed by

Facility	Date Received	Subject	Category	Status	Agency	Summary	Comments
							contamination within the active portion of the facility. If RL/WHC can demonstrate that contamination would not occur if the area were disturbed, then the barrier requirement would be waived. Ecology states "if data can be collected, analyzed, and independently validated in a timely manner," they would consider deferring the compliance date of October 10, 1994, to construct the barrier, until the sampling and analytical results were complete.
							On November 4, 1994, Ecology sent a letter to RL stating that enforcement to construct a barrier would be deferred until June 5, 1995, when validated data is received.
Hanford (WHC)	5/18/94	RCRA	Informal	Open	Ecology	Ecology issued a compliance letter to RL and WHC on May 18, 1994, that followed a dangerous waste compliance assessment of the PUREX and UO3 facilities. The assessment was conducted to "determine current compliance with interim status requirements...and to review applicability and appropriateness of requirements for currently permitted vessels, and those vessels that will be added to the PUREX Part A Permit Application." The letter identified 7 findings, 5 observations, and 11 requirements.	The letter states that "this investigation was performed under the guise of an environmental assessment rather than a compliance inspection. However, failure to correct the deficiencies may result in a compliance action pursuant to the authorities granted to Ecology by RCW-70-105." Because of this language, RL/WHC decided to handle this letter like a voluntary compliance letter.
							On June 27, 1994, RL issued a letter that responded to the findings, observations, and requirements. The letter's responses either disputed the findings, etc., or agreed with them and provided corrective actions with completion dates.

Facility	Date Received	Subject	Category	Status	Agency	Summary	Comments
Hanford (PNL)	8/05/94	RCRA	Informal	Open	Ecology	Ecology issued a compliance letter to RL and PNL on August 5, 1994, that followed a dangerous waste compliance assessment of the 325 Shielded Analytical Laboratory (SAL) on April 12 and 21, 1994.	<p>Four areas of noncompliance with WAC 173-303 were identified: (1) inadequate closure of containers in storage; (2) facility recordkeeping; (3) interim status permit violations; and (4) the absence of tracking dangerous waste volumes after small quantities of liquid wastes were mixed with large quantities of water in the RMW sewer. Corrective actions and dates for completion were provided by Ecology.</p> <p>The first two items were completed on schedule. The second two items will not be fully completed until after the facility is restarted, which is expected to occur before the end of calendar year 1994, when the systems are put into place to fully comply with the requirements identified during this inspection.</p>
Hanford (WHC)	9/02/94	CAA	Informal	Open	DOH	DOH conducted a sitewide quality assurance (QA) audit from August 15-19, 1994, which focused on the overall QA program of RL, WHC, PNL, and BHI. Four findings and two BMPs were identified.	DOH stated in their letter that a new category of findings, finding level IVs, would be created to replace the former category of observations, which in the past had not been responded to, and that all formerly identified observations from past audits would be changed to finding level IVs as well. The letter did not provide a date for completion of the former observations.
Hanford (WHC)	10/18/94	RCRA	Informal	Open	Ecology	Ecology issued a compliance letter on October 18, 1994, to RL and WHC that followed an inspection on August 3, 4, 15, and 29, 1994, at the 204-AR Waste Transfer Facility. This	<p>On December 7, 1994, RL provided a response to DOH.</p> <p>There were three violations noted: (1) emergency procedures were not in place; (2) the contingency plan was not adequate; and (3) transfer operation procedures were</p>

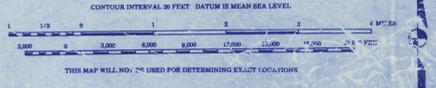
Facility	Date Received	Subject	Category	Status	Agency	Summary	Comments
						facility is operating as an interim status facility under a revised Part A permit.	inadequate. Additionally, three concerns were noted. RL responded to the violations in a letter dated November 21, 1994. All the violations have been taken care of, and the concerns are being addressed. No formal notice of closure has been received from Ecology.
Hanford (WHC)	11/03/94	CAA	Informal	Open	DOH	DOH issued a compliance letter to RL on November 3, 1994, that followed an inspection at the 200 West Tank Farms on October 19, 1994. The inspection identified three findings and one BMP.	During the inspection, stack monitoring systems for five stacks in the 200 West tank farms were examined. The findings identified during the inspection are as follows: (1) paper tape on the rotometers can lead to inaccurate flow readings and inaccurate calculations in determining doses; (2) sample flow rate data for two stacks is low, which is in violation of emission monitoring procedures and could lead to under reporting emissions; and (3) several instruments were found to be out of calibration.
Hanford (BHI)	11/15/94	RCRA	Informal	Open	Ecology	Ecology issued a compliance letter to RL and Bechtel Hanford, Inc. (BHI), on November 15, 1994, that followed an inspection on November 3, 1994, of dangerous waste generator facilities.	Corrective actions for the findings, and a recommendation to correct the BMP, were provided in the letter. Three facilities were inspected and violations were identified at the 271-U 90-day accumulation area. These are as follows: (1) the spill kit did not contain all the required equipment (WAC 173-303-340); (2) the waste inventory log sheet did not correspond to the labeling on the container (WAC 173-303-210); and (3) the weekly inspection log for the facility indicated no problems were found with any safety and emergency equipment; however, safety and emergency equipment was

Facility	Date Received	Subject	Category	Status	Agency	Summary	Comments
							found to be missing, damaged, or out of certification.
Hanford (ICF KH)	12/08/94	RCRA	Informal	Open	Ecology	Ecology issued a compliance letter on December 8, 1994, to RL and ICF KH that followed an inspection on November 3, 1994, of satellite accumulation areas in the 200 East and West Areas. These areas are in support of Project W-049H.	<p>Ecology provided corrective actions in the compliance letter and asked RL to provide a "certificate of compliance" indicating closure of the findings by November 28, 1994. The letter alleged three violations: WAC 173-303-200(2)(a), the accumulation containers were not under the control of the operator or secured; WAC 173-303-950(2), paint materials in the buckets at the area were left to air dry, which constituted nonpermitted treatment and disposal; and WAC 173-303-145(3)(a)(ii), it did not appear that spilled materials were mitigated or prevented. Additionally, five areas of concern were noted in the letter.</p> <p>The corrective actions were to be completed within 24 hours of receipt of the letter, and Ecology requested verification be submitted to them by December 30, 1994.</p>



LEGEND	
DIRT OR GRAVEL ROAD
SECONDARY ROAD	-----
MAJOR HIGHWAY	=====
RAILROAD	-----
POWER TRANSMISSION LINE	-----
EXPORT WATER	-----
HANFORD SITE BOUNDARY	-----
BOAT LANDING	○
GATE	□
MILEPOST	○
DRAWING GRID COORDINATES	A,B,C
HANFORD LAND COORDINATES	1,2,3
WASHINGTON STATE LAND COORDINATES	N50,000p S40,000p N510,000 2,150,000
INTERSTATE ROUTE	82
U. S. ROUTE	12
WASHINGTON STATE ROUTE	24

SITE PLAN
CONTOUR INTERVAL 30 FEET DATUM IS MEAN SEA LEVEL



OFFICIAL RELEASE
BY WHC EPT/1011
DATE MAR 17 1999

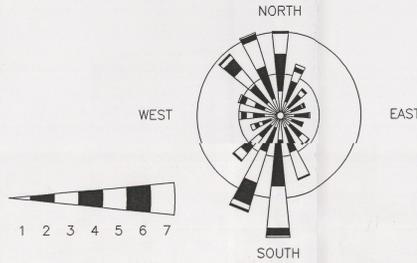
NOTE
APPROVAL TO CHANGE THIS MAP MUST BE OBTAINED FROM THE ENVIRONMENTAL DIVISION, RCRA PERMITS SECTION BECAUSE THIS MAP WAS SUBMITTED WITH PERMIT APPLICATIONS TO THE WASHINGTON DEPARTMENT OF ECOLOGY.

NO.	DATE	DESCRIPTION
5	144201	REVISED PER EGN

DRAWING APPROVALS		DATE	U. S. Department of Energy Richland Operations Office	
APPROVED FOR QUALITY ASSURANCE			Westinghouse Hanford Company	
RESPONSIBLE ENGINEER	R. L. MARTELL	3/99	GENERAL OVERVIEW OF HANFORD SITE	
DRAWING APPR				
CHECKED			SCALE	AS SHOWN
DRAWN	D. JUNT	3/99	INDEX NO.	600 GEN
CLASSIFICATION	NONE	NOT REQ'D	DRAWING NO.	H-6-958
SHEET NO.	1	TOTAL SHEETS	1	

WIND ROSE FOR: FFTF
% CALM WINDS = .4
STATION NO.9

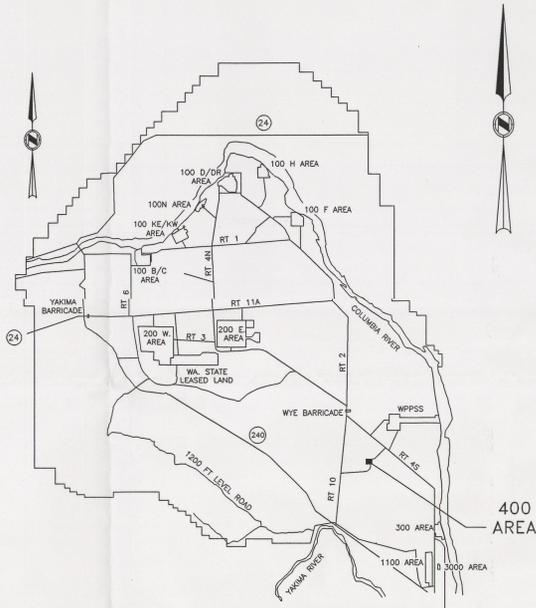
PERIOD COVERED
1/1/93 - 12/31/93



PADDLES INDICATE DIRECTION WIND IS COMING FROM.
RADIAL GRIDS REPRESENT 5.0% AND 10.0% OCCURRENCE.

WIND CLASS	MILES/HOUR
1	>1.0 - 3.0
2	4.0 - 7.0
3	8.0 - 12.0
4	13.0 - 18.0
5	19.0 - 24.0
6	25.0 - 31.0
7	32.0 +

WIND ROSE



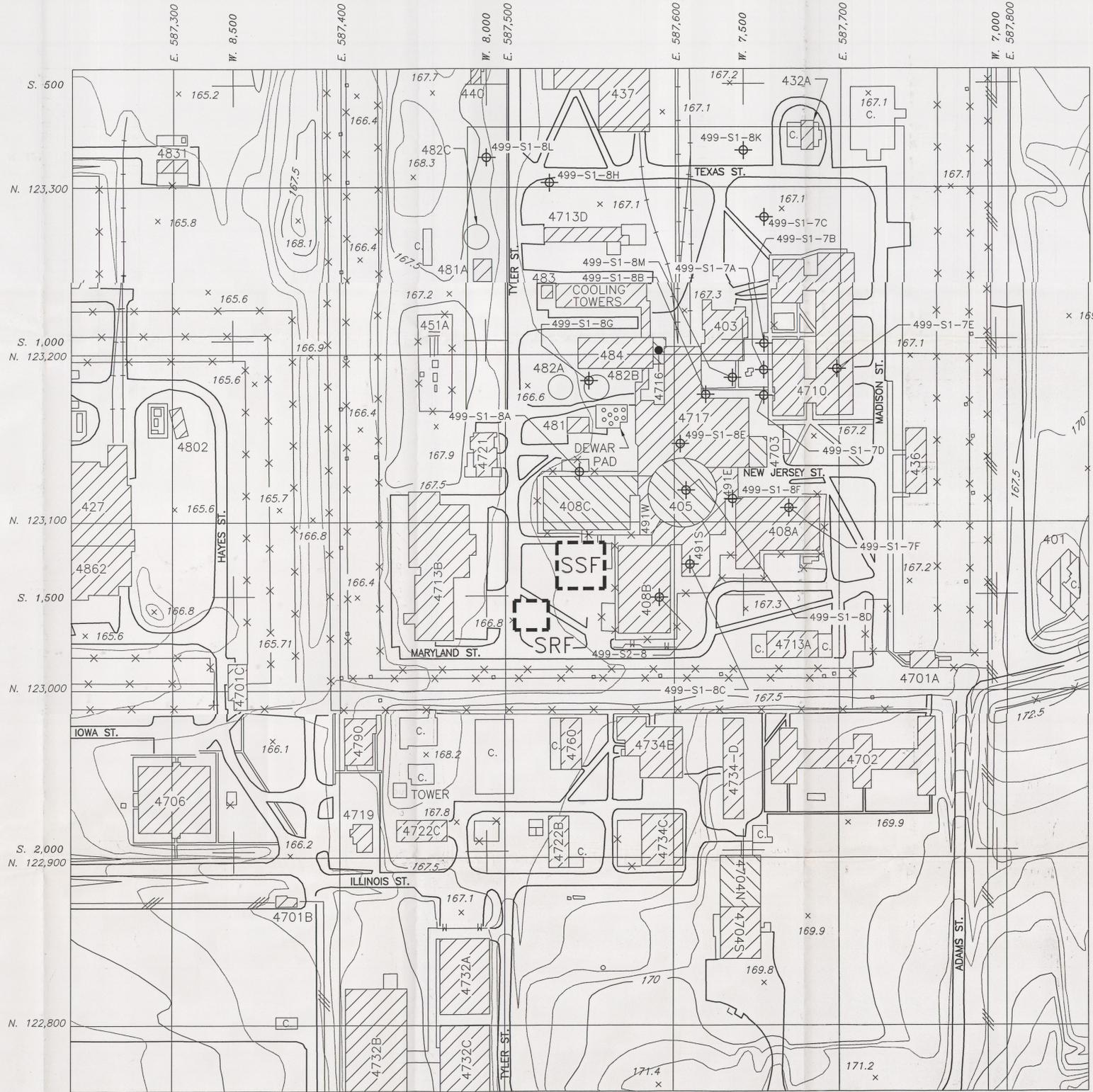
KEY PLAN
SCALE: NONE

LEGEND

- | | |
|--|--|
| <ul style="list-style-type: none"> 49,000 HANFORD PLANT COORDINATES (FEET) 44,000 WASHINGTON STATE COORDINATES (METERS) INDEX CONTOUR (METERS) INTERMEDIATE CONTOUR SPOT ELEVATION FIELD CONTROL ELEVATION PHOTO CONTROL ELEVATION IMPROVED ROAD UNIMPROVED ROAD DIRT ROAD SIDEWALKS/PARKING LOTS RAILROADS SECURITY, WARNING, MISC FENCES POST & CHAIN (CRIB, BURIAL GROUND FENCES) PERIMETER FENCES | <ul style="list-style-type: none"> BUILDINGS/STRUCTURES & TOWERS 242-A BUILDING NUMBER MOBILE OFFICES 2-E25-25 WELL 299-E25-25 CATCH BASIN MANHOLE PIPELINES STEAM TANKS POWER POLE UTILITY BOX LIGHT POLE FIRE HYDRANT FLAG POLE BRUSH RETAINING WALL 216-A-42 CRIB 218-E-10 BURIAL GROUND PROPOSED |
|--|--|

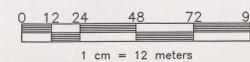
GENERAL NOTES

- THIS MAP IS BASED ON AERIAL PHOTOGRAPHY FLOWN 6/20/89. THE TOPOGRAPHIC MAP WAS PREPARED BY GEONEX, INC. AND CERTIFIED TO MEET NATIONAL MAP ACCURACY STANDARDS. OFFICIAL COPIES OF THE GEONEX MAPS THAT SHOW THE CERTIFICATE ARE LOCATED IN THE WESTINGHOUSE ENGINEERING FILES AS DRAWING NUMBERS H-4-72046 SHEETS 1 AND 2. THE NAMES OF PHYSICAL FEATURES AND THE TITLE BLOCK OF THE H-13-0000401 AND H-13-0000402 MAPS WERE ADDED BY WESTINGHOUSE HANFORD COMPANY.
- WASHINGTON STATE PLANE COORDINATE SYSTEM: THE OFFICIAL COORDINATE SYSTEM AS DEFINED BY THE REVISED CODE OF WASHINGTON (RCW). THE HANFORD SITE LIES WITHIN THE WASHINGTON COORDINATE SYSTEM, SOUTH ZONE. THIS GRID COVERS THE ENTIRE SITE AND USES X (EASTINGS) AND Y (NORTHINGS) COORDINATES. HORIZONTAL DATUM: NAD-83 LAMBERT PROJECTION. WASHINGTON STATE PLANE COORDINATES ARE SHOWN IN METERS. CONTOUR INTERVAL: 0.5 METERS.
- HANFORD PLANT GRID: A LOCAL GRID SYSTEM WITH ITS INITIAL POINT NORTHEAST OF THE 400 AREA. IT COVERS 200 EAST AND 200 WEST AREA AS WELL AS GENERAL SITE WORK SUCH AS WELLS AND BURIAL GROUNDS. HANFORD COORDINATES ARE SHOWN IN FEET.



SITE PLAN

SCALE: 1:1200



OFFICIAL RELEASE
BY WHC
DATE DEC 16 1994

THIS MAP IS TO BE USED FOR REFERENCE PURPOSES ONLY.
DO NOT USE THIS MAP FOR CONSTRUCTION PURPOSES.

DRAWN RAFAEL TORRES CHECKED [Signature] DTG APV [Signature] COG ENGR [Signature]	DATE 12-15-94 12-16-94 12-15-94	U.S. DEPARTMENT OF ENERGY Richland Operations Office Westinghouse Hanford Company
SODIUM STORAGE AND REACTION FACILITIES TOPOGRAPHIC MAP		H-13-000258
DWG NO H-13-000401 TITLE 400 AREA TOPOGRAPHIC MAP	REF NUMBER H-13-000401	DWG NO H-13-000258 INDEX NO 0103 DATE 12-15-94

DWG NO	TITLE	REV NO	DESCRIPTION	REV DATE	CHK BY DATE	DTG APP DATE	COG ENGR	OTHER	OTHER	APPROVALS BY/DATE	SIZE	BLDG NO	INDEX NO	DWG NO	REV
H-13-000401	400 AREA TOPOGRAPHIC MAP										F	400G	0103	H-13-000258	0
DRAWING TRACEABILITY LIST															
NEXT USED ON H-13-000401															
CADFILE N000258A															
CADCODE DOS:6.0;ACD2:12.0;SS															
SCALE SHOWN EDT 609844															
SHEET 1 of 1															