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1.0 INTRODUCTION

1
2
3
4 The Washington State Department of Ecology (Ecology) *Dangerous Waste*
5 *Regulations*, Washington Administrative Code (WAC) 173-303-281, require that
6 dangerous waste facility owners and/or operators submit a Notice of Intent
7 (NOI) before submittal of a permit application for new or expanded dangerous
8 waste treatment, storage, and/or disposal (TSD) units on the Hanford Facility.
9 The following information for this NOI is being filed with Ecology by the
10 U.S. Department of Energy, Richland Operations Office (DOE-RL), the owner and
11 operator. This document is to serve notice of the intent to expand the
12 treatment and storage capacity of the Hanford Facility Double-Shell Tank
13 System.

14
15 The Double-Shell Tank System (DOE-RL 1991) is a TSD unit that consists of
16 double-shell tanks, waste transfer vault tanks, double-contained receiver
17 tanks, and ancillary equipment permitted for treatment and storage of liquid
18 mixed waste. The Double-Shell Tank System is located in the 200 East,
19 200 West, and 600 Areas of the Hanford Facility.

20
21 The expansion to the Double-Shell Tank System will consist of six
22 1.16-million gallon (4.4-million liter) underground, stainless steel
23 double-shell storage tanks and associated systems known as the Multi-Function
24 Waste Tank Facility. Two 1.16-million gallon (4.4-million liter) underground,
25 stainless steel double-shell storage tanks will be located in the 200 West
26 Area and four 1.16-million gallon (4.4-million liter) underground, stainless
27 steel double-shell storage tanks will be located in the proposed expanded
28 200 East Area. [The expanded boundary of the 200 East Area was part of the
29 600 Area (Figure 1)].

30
31 Each underground storage tank will consist of two concentric structures.
32 The outer structure will be reinforced concrete designed to sustain all soil
33 loadings, dead loads, live loads, seismic loads, and loads caused by
34 temperature gradients between the mixed waste contained within the primary
35 tank and the outside soil. The reinforced concrete structure will be lined
36 with a stainless steel liner that extends along the bottom, sides, and upper
37 haunch of the concrete to the upper haunch of the primary tank. The concrete
38 structure along with the liner will provide the secondary containment as
39 defined by WAC 173-303-640, "Tank Systems". The inner completely enclosed
40 stainless steel tank will be located within the secondary confinement and will
41 be separated from the secondary liner by an annular space. This inner
42 stainless steel tank will perform the function of the primary containment as
43 defined by WAC 173-303-640. An insulating/support pad will be placed between
44 the bottom of the primary tank and the secondary liner to protect the
45 reinforced concrete floor from thermal stresses. Thermal protection, if
46 required, will be slotted to provide passages for annulus ventilation airflow.
47 The primary tank will be designed to contain the mixed waste materials. The
48 secondary liner will safely contain any leakage that could occur because of a
49 failure of the primary tank.
50

1 The following information identifies the owner and operator of the
2 Hanford Facility and the primary contact:

3
4 **Owner and Operator:** U.S. Department of Energy, Richland Operations Office

5
6 **Manager, Richland Operations Office:** Mr. John D. Wagoner

7
8 **Richland Operations Office Contact:** Mr. J. D. Bauer

9
10 **Address:** U.S. Department of Energy
11 Richland Operations Office
12 Post Office Box 550
13 Richland, Washington 99352

14
15 **Telephone:** (509) 376-5441
16
17

18
19 **2.0 FACILITY DESCRIPTION AND GENERAL PROVISIONS**
20
21

22 The Hanford Facility is a single RCRA facility identified by the
23 U.S. Environmental Protection Agency (EPA)/State Identification Number
24 WA7890008967 that consists of over 60 TSD units conducting dangerous waste
25 management activities. These TSD units are included in the *Hanford Facility*
26 *Dangerous Waste Part A Permit Application* (DOE-RL 1988b). The Hanford
27 Facility consists of the contiguous portion of the Hanford Site that contains
28 these TSD units and, for the purposes of RCRA, is owned by the U.S. Government
29 and operated by the DOE-RL (excluding lands north and east of the Columbia
30 River, river islands, lands owned or used by the Bonneville Power
31 Administration, lands leased to the Washington Public Power Supply System, and
32 lands owned by or leased to the state of Washington).
33

34 The proposed expansion is to permit and construct stainless steel double-
35 shell tanks to provide additional treatment and storage capacity of liquid
36 mixed waste. The following sections describe the expanded treatment and
37 storage capacity of the Multi-Function Waste Tank Facility, with other general
38 provisions specified in WAC 173-303-281.
39

40
41 **2.1 LOCATION OF PROPOSED EXPANSION**
42

43 The Multi-Function Waste Tank Facility will be located in the proposed
44 expanded 200 East Area and the 200 West Area of the Hanford Facility, Benton
45 County, Washington. The 200 West Area tanks will be located at the southwest
46 corner of Beloit Avenue and 16th Street. The 200 East Area tanks will be
47 located directly between the northwest corner of Route 3 and Route 4S.
48 Figures 1, 2, 3, and 4 are small-scale graphics depicting the Hanford Facility
49 and the location of the Multi-Function Waste Tank Facility. A large-scale map

1 and two topographic maps, which meet the 1-inch-(2.54-centimeter-) equals-not-
2 more-than-200-feet (61 meters) requirement, are provided in Appendix A and
3 include the following:

- 4
- 5 • General Overview of Hanford Site (H-6-958)
- 6
- 7 • Topographic map of the Multi-Function Waste Tank Facility
- 8 (H-13-000037, sheets 1 and 2), including surrounding 1,000 feet
- 9 (305 meters). There are no existing or planned injection or
- 10 withdrawal wells in the vicinity of the Multi-Function Waste Tank
- 11 Facility locations. The Multi-Function Waste Tank Facility will meet
- 12 WAC 173-303-640, "Tank System" requirements; therefore, compliance
- 13 with the contingent groundwater protection program is not required.
- 14 There are no barriers planned for drainage or flood control at the
- 15 Multi-Function Waste Tank Facility locations.
- 16
- 17

18 2.2 DESCRIPTION OF UNIT TO BE EXPANDED

19

20 The Double-Shell Tank System contains 40 tanks and ancillary equipment
21 permitted for treatment and storage of liquid mixed waste. The 40 tanks
22 consist of: five tank farms in the 200 East Area and one tank farm in the
23 200 West Area totaling 28 double-shell tanks, seven waste transfer vault
24 tanks, and five double-contained receiver tanks located in the 200 East,
25 200 West, and 600 Areas.

26

27 The double-shell tanks consist of 1.0- to 1.2-million gallon (3.8- to
28 4.4-million liter) tanks, commonly referred to as 'million-gallon tanks'
29 designed for long-term storage (up to 50 years) of high-activity mixed waste.
30 The seven waste transfer vault tanks are 800-gallon (3,028 liter) to
31 45,000-gallon (170,325 liter) tanks. The five remaining double-contained
32 receiver tanks (those not in the tank farms) are 16,280-gallon (61,620-liter)
33 to 31,000-gallon (117,335-liter) tanks. The double-contained receiver tanks
34 serve various functions including receiver tanks for single-shell tank and
35 double-shell tank waste, lift stations, and vent stations.

36

37 The Double-Shell Tank System also includes underground transfer
38 pipelines, diversion boxes, valve pits, and other ancillary equipment for
39 transferring waste between tanks, from the point of generation to the tank
40 system, or from the tank system to treatment and/or disposal units.

41 42

43 2.3 DESCRIPTION OF EXPANSION OF THE DOUBLE-SHELL TANK SYSTEM

44

45 The Multi-Function Waste Tank Facility will consist of six tanks, each
46 with a nominal capacity of 1.16-million gallons (4.4-million liters). The
47 total expansion of the capacity for the treatment and storage of liquid mixed
48 waste in double-shell tanks at the Multi-Function Waste Tank Facility will be
49 6.96-million gallons (26.4-million liters).

50

1 The additional tank capacity is needed to provide safe and
2 environmentally acceptable treatment and storage capacity to handle waste
3 generated during single-shell and double-shell tank remediation and retrieval
4 activities. These activities are required to address current safety issues,
5 future safety-related retrieval and remediation efforts, planned retrieval
6 demonstrations, and to support the long-term cleanup mission on the Hanford
7 Facility. The completion of the Multi-Function Waste Tank Facility also will
8 allow continued interim waste storage in a safe, environmentally sound manner
9 to comply with all applicable federal, state, and local regulations.

10
11
12 **2.4 COMPLIANCE WITH STATE ENVIRONMENTAL POLICY ACT**

13
14 Appendix B contains a *State Environmental Policy Act of 1971*
15 Environmental Checklist Supplement and a copy of the Environmental Checklist
16 submitted June 28, 1991 for the Double-Shell Tank System.

17
18
19 **2.5 COMPLIANCE WITH SITING STANDARDS**

20
21 The demonstration of compliance with the siting criteria as required
22 under WAC 173-303-282(6) and (7) is addressed in the following sections.

23
24
25 **2.5.1 Criteria for Elements of the Natural Environment**

26
27 The following section addresses measures in place at the Double-Shell
28 Tank System to provide protection of the natural environment. Each element of
29 the criteria identified in WAC-173-303-282(6) is addressed.

30
31 **2.5.1.1 Earth.** This section addresses the potential for the release of
32 dangerous waste into the environment because of structural damage resulting
33 from conditions of the earth at the Multi-Function Waste Tank Facility.

34
35 **2.5.1.1.1 Seismic Risk.** The Multi-Function Waste Tank Facility will be
36 located in Benton County, Washington, and has been identified as being in
37 Zone 2B in accordance with the *Uniform Building Code* (ICBO 1991). An
38 integrity assessment will be performed to verify that the storage tanks,
39 secondary containment, and associated piping leading to and from the tanks are
40 adequate to resist seismic events and natural phenomena. The criteria defined
41 in the *Hanford Plant Standards, Standards Design Criteria - 4.1* (DOE-RL 1988a)
42 will be applied in analyzing structural integrity of aboveground structures,
43 systems, and components. For underground tanks and buried systems, the
44 criteria defined in *Design Loads for New Underground Double-Shell Tanks and*
45 *Associated Underground Process Piping* (WHC 1993) will be applied. These
46 documents provide seismic load criteria specific for the Hanford Facility.

47
48 **2.5.1.1.2 Subsidence.** The Multi-Function Waste Tank Facility will be
49 located in the proposed expanded 200 East Area and 200 West Area of the
50 Hanford Facility. These areas of the Hanford Facility are not considered
51 areas subject to subsidence (PNL 1992).

1 **2.5.1.1.3 Slope or Soil Instability.** The Multi-Function Waste Tank
2 Facility will not be located in areas of slope or soil instability, or in
3 areas affected by unstable slope or soil condition (PNL 1992).
4

5 **2.5.1.2 Air.** The Multi-Function Waste Tank Facility will not be an
6 incineration unit. Discussion of measures to be taken to reduce air emissions
7 resulting from incineration is not applicable.
8

9 **2.5.1.3 Water.** This section addresses the potential for contaminating water
10 of the state in the event of a release of mixed waste.
11

12 **2.5.1.3.1 Surface Water.** The following sections address considerations
13 for the protection of surface water.
14

15 **2.5.1.3.1.1 Flood, Seiche, and Tsunami Protection.** Three sources of
16 potential flooding of the area were considered: (1) the Columbia River,
17 (2) the Yakima River, and (3) storm-induced run-off in ephemeral streams
18 draining the Hanford Site. No perennial streams occur in the central part of
19 the Hanford Site.
20

21 The Federal Emergency Management Agency has not prepared floodplain maps
22 for the Columbia River through the Hanford Site. The flow of the Columbia
23 River is largely controlled by several upstream dams that are designed to
24 reduce major flood flows. Based on a U.S. Army Corps of Engineers study of
25 the flooding potential of the Columbia River that considered historical data
26 and water storage capacity of the dams on the Columbia River (COE 1969), the
27 U.S. Department of Energy (ERDA 1976) has estimated the probable maximum flood
28 (Figure 4). The estimated probable maximum flood would have a larger
29 floodplain than either the 100- or 500-year floods. The Multi-Function Waste
30 Tank Facility is well above the elevation of the Columbia River probable
31 maximum flood and, therefore, is not within the 100- or 500-year floodplain.
32

33 The 100-year floodplain for the Yakima River, as determined by the
34 Federal Emergency Management Agency (FEMA 1980) is shown in Figure 7.
35 The Multi-Function Waste Tank Facility is not within the floodplain.
36

37 The only other potential source of flooding of the Multi-Function Waste
38 Tank Facility is run-off from a large precipitation event in the Cold Creek
39 watershed. This event could result in flooding of the ephemeral Cold Creek.
40 Skaggs and Walters (1981) have given an estimate of the probable maximum flood
41 using conservative values of precipitation, infiltration, surface roughness,
42 and topographic features. The resulting flood area (Figure 8) would not
43 affect the Multi-Function Waste Tank Facility. The 100-year flood would be
44 less than the probable maximum flood.
45

46 **2.5.1.3.1.2 Perennial Surface Water Bodies.** There are no perennial
47 surface water bodies within one-quarter mile (0.4 kilometer) of the Multi-
48 Function Waste Tank Facility locations.
49

1 **2.5.1.3.1.3 Surface Water Supply.** The Multi-Function Waste Tank
2 Facility will not be located within an area designated as a watershed nor will
3 it be located within one-quarter mile (0.4 kilometer) of a surface water
4 intake for domestic water.

5
6 **2.5.1.3.2 Groundwater.** The following addresses considerations for the
7 protection of groundwater. The Multi-Function Waste Tank Facility will meet
8 tank system requirements as defined by WAC 173-303-640; therefore, compliance
9 with the contingent groundwater protection program is not required.

10
11 **2.5.1.3.2.1 Depth to Groundwater.** The Multi-Function Waste Tank
12 Facility will be located in the proposed expanded 200 East Area and 200 West
13 Area of the Hanford Facility. The depth to groundwater at these locations is
14 over 240 feet (73 meters).

15
16 **2.5.1.3.2.2 Sole Source Aquifer.** The Multi-Function Waste Tank Facility
17 will not be located over an area designated as a 'sole source aquifer' under
18 Section 1424(e) of the *Safe Drinking Water Act of 1974*.

19
20 **2.5.1.3.2.3 Groundwater Management Areas and Special Protection Areas.**
21 The proposed expansion will involve the addition of treatment and storage
22 capacity of six 1.16-million gallon (4.4-million liter) underground tanks and
23 associated equipment. The tanks will meet double-containment requirements per
24 WAC 173-303-640. The Multi-Function Waste Tank Facility will not be located
25 in a groundwater management area or a special protection area.

26
27 **2.5.1.3.2.4 Groundwater Intakes.** The Multi-Function Waste Tank Facility
28 will not be located within one-quarter mile (0.4 kilometer) of a groundwater
29 intake for domestic water.

30
31 **2.5.1.4 Plants and Animals.** The proposed expansion will not result in an
32 increased potential for dangerous waste to contaminate plant and animal
33 habitat if a release of dangerous waste would occur.

34
35 **2.5.1.5 Precipitation.** The Multi-Function Waste Tank Facility will not be
36 located in an area having a mean annual precipitation level of greater than
37 100 inches (254 centimeters) (DOE 1987).

38
39
40 **2.5.2 Criteria for Elements of the Built Environment**

41
42 The following sections address the locational factors affecting
43 protection of the built environment. Each element of the criteria for
44 nonland-based facilities or units identified in WAC 173-303-282(7) is
45 addressed.

46
47 **2.5.2.1 Adjacent Land Use.** This section addresses the setback criteria for
48 adjacent land use.

49

1 **Nonland-Based Facilities.** The Multi-Function Waste Tank Facility
2 location in the proposed expanded 200 East Area is approximately 13 miles
3 (20.9 kilometers) and the location in the 200 West Area is approximately
4 12 miles (19.3 kilometers) from the closest Hanford Facility property line.

5
6 **2.5.2.2 Special Land Uses.** This section addresses setback criteria for
7 special land uses.

8
9 **2.5.2.2.1 Wild and Scenic Rivers.** The Multi-Function Waste Tank
10 Facility location in the proposed expanded 200 East Area is approximately
11 13 miles (20.9 kilometers) and the location in the 200 West Area is
12 approximately 12 miles (19.3 kilometers) from the Hanford Reach of the
13 Columbia River, which has been proposed as a Wild and Scenic River. The
14 Multi-Function Waste Tank Facility clearly is not within the viewshed of users
15 of the Columbia River.

16
17 **2.5.2.2.2 Parks, Recreation Areas, National Monuments.** The Multi-
18 Function Waste Tank Facility location in the proposed expanded 200 East Area
19 is approximately 13 miles (20.9 kilometers) and the location in the 200 West
20 Area is approximately 12 miles (19.3 kilometers) from the closest Hanford
21 Facility boundary line and, therefore, is over 500 feet (152 meters) from the
22 nearest state or federally designated park, recreation area, or national
23 monument.

24
25 **2.5.2.2.3 Wilderness Areas.** The Multi-Function Waste Tank Facility
26 location in the proposed expanded 200 East Area and the location in the
27 200 West Area are located over 500 feet (152 meters) from the boundary of the
28 Hanford Facility, and are clear of any Wilderness Areas as defined by the
29 *Wilderness Act of 1964*.

30
31 **2.5.2.2.4 Farmland.** The Multi-Function Waste Tank Facility location in
32 the proposed expanded 200 East Area and the location in the 200 West Area are
33 a minimum of 500 feet (152 meters) from any commercial or private prime
34 farmland.

35
36 **2.5.2.3 Residences and Public Gathering Places.** This section discusses
37 factors affecting residences and public gathering places. The Multi-Function
38 Waste Tank Facility location in the proposed expanded 200 East Area and the
39 location in the 200 West Area are located over 500 feet (152 meters) from
40 residences and public gathering places.

41
42 **2.5.2.3.1 Incineration.** Incineration will not be a process used at the
43 Multi-Function Waste Tank Facility. Therefore, this criterion is not
44 applicable.

45
46 **2.4.2.3.2 Land Use Compatibility.** The Hanford Facility conforms with
47 local land use zoning designation requirements.
48

1
2
3
4 **4.0 JUSTIFICATION OF NEED**

5 In May 1989, the U.S. Department of Energy along with Ecology and the
6 U.S. Environmental Protection Agency formally entered an agreement known as
7 the *Hanford Federal Facility Agreement and Consent Order* (Tri-Party Agreement)
8 (Ecology et al. 1992) for the purpose of the Hanford Facility gaining
9 compliance with federal, state, and local laws concerning the management of
10 waste. The operation of the Multi-Function Waste Tank Facility supports
11 Tri-Party Agreement milestones by providing a means to treat and store waste
12 constituents and prepare the waste for transfer within the Hanford Facility.

13 The Multi-Function Waste Tank Facility will provide safe and
14 environmentally acceptable treatment and storage capacity to handle dangerous
15 waste generated during single-shell and double-shell tank remediation and
16 retrieval activities. These activities are required to address current safety
17 issues, future safety-related retrieval and remediation efforts, planned
18 retrieval demonstrations, and to support the long-term cleanup mission of the
19 Hanford Facility. The completion of the Multi-Function Waste Tank Facility
20 also will allow continued interim waste storage in a safe, environmentally
21 sound manner to comply with all federal and state regulations.
22
23
24

25 **5.0 IMPACT ON OVERALL DESIGN CAPACITY AT THE HANFORD FACILITY AND**
26 **THE STATE OF WASHINGTON**
27

28
29 The current capacity for the treating, storing, and/or disposing of
30 liquid mixed waste is limited within Washington State and the Hanford
31 Facility. The expansion of the Hanford Facility Double-Shell Tank System with
32 the construction of the Multi-Function Waste Tank Facility will allow for
33 treatment and storage of liquid mixed waste retrieved from various remediation
34 operations, and will comply with WAC 173-303 regulations on mixed waste. This
35 expansion for treatment and storage capacity at the Multi-Function Waste Tank
36 Facility supports the current onsite mission of waste management, and
37 environmental remediation and remediation.

6.0 REFERENCES

6.1 DOCUMENTS

- COE, 1969, *Columbia River Basin: Lower Columbia River Standard Project Flood and Probable Maximum Flood*, September 1969, Memorandum Report, U.S. Army Corps of Engineers, U.S. Army Engineer Division, North Pacific, Portland, Oregon.
- DOE, 1987, *Final Environmental Impact Statement: Disposal of Hanford Defense High-Level, Transuranic and Tank Wastes*, Vol. 1-5, DOE/EIS-0113, U.S. Department of Energy, Washington, D.C.
- DOE-RL, 1991, *Double-Shell Tank System Dangerous Waste Permit Application*, Vols. 1-3, DOE/RL-90-39, U.S. Department of Energy-Richland Operations Office, Richland Washington.
- DOE-RL, 1988a, "Design Load for Structures," HPS-SDC-4.1, Revision 11, *Hanford Plant Standards*, U.S. Department of Energy-Richland Operations Office, Richland Washington.
- DOE-RL, 1988b, *Hanford Facility Dangerous Waste Part A Permit Application*, Vols. 1-3, DOE/RL-88-21, U.S. Department of Energy-Richland Operations Office, Richland, Washington.
- Ecology, EPA, and DOE, 1992, *Hanford Federal Facility Agreement and Consent Order*, Vols. 1 and 2, Washington State Department of Ecology, U.S. Environmental Protection Agency, U.S. Department of Energy, Olympia, Washington.
- ERDA, 1976, *Evaluation of Impact of Potential Flooding Criteria on the Hanford Project*, RLO-76-4, U.S. Energy Research and Development Administration-Richland Operations Office, Richland, Washington.
- FEMA, 1980, *Flood Insurance Study: Benton County Washington*, Federal Emergency Management Agency, Federal Insurance Administration, Washington, D.C.
- ICBO, 1991, *Uniform Building Code*, International Conference of Building Officials, Whittier, California.
- PNL, 1992, *Hanford Site National Environmental Policy Act (NEPA) Characterization*, PNL-6415, Revision 5, Pacific Northwest Laboratory, Richland, Washington.
- Skaggs, R.L. and W.H. Walters, 1981, *Flood Risk Analysis of Cold Creek Near the Hanford Site*, PNL-4219, Pacific Northwest Laboratory, Richland, Washington.

1 WHC, 1993, *Design Loads for New Underground Double-Shell Tanks and Associated*
2 *Underground Process Piping*, WHC-SD-GN-GDS-30008, Westinghouse Hanford
3 Company, Richland, Washington.
4

5

6 **6.2 FEDERAL AND STATE ACTS**

7

8 *Resource Conservation and Recovery Act of 1976*, as amended, 42 USC 6901
9 et seq.

10

11 *Safe Drinking Water Act of 1974*, as amended, 42 USC 300f et seq.

12

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

14

15 *Wilderness Act of 1964*, as amended, 16 USC 1131-1136 et seq.

16

17

18 **6.3 REVISED CODE OF WASHINGTON AND WASHINGTON ADMINISTRATIVE CODE**

19

20 WAC 173-303, *Dangerous Waste Regulations*, Washington State Department of
21 Ecology, Olympia, Washington.

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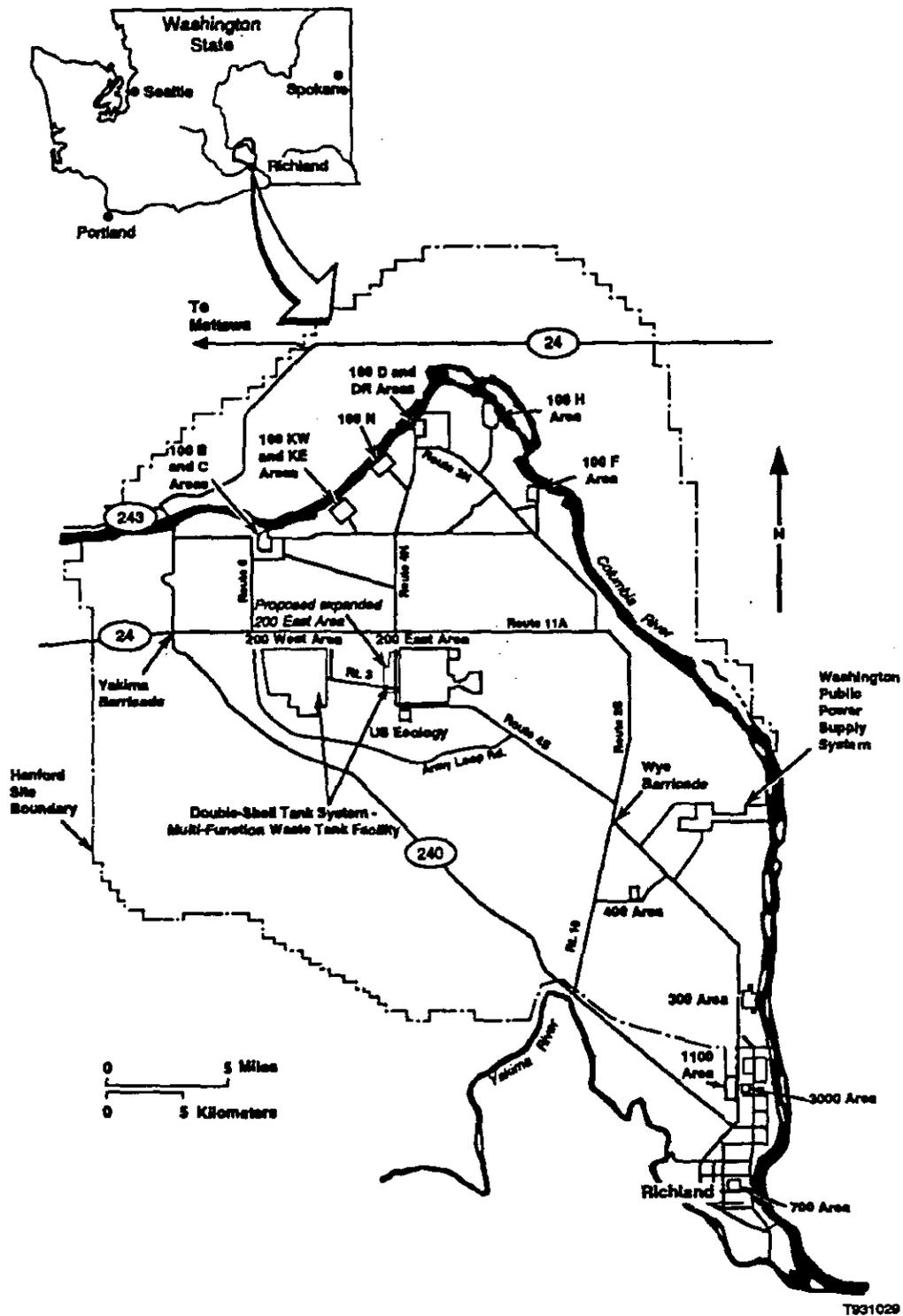


Figure 1. Hanford Site.

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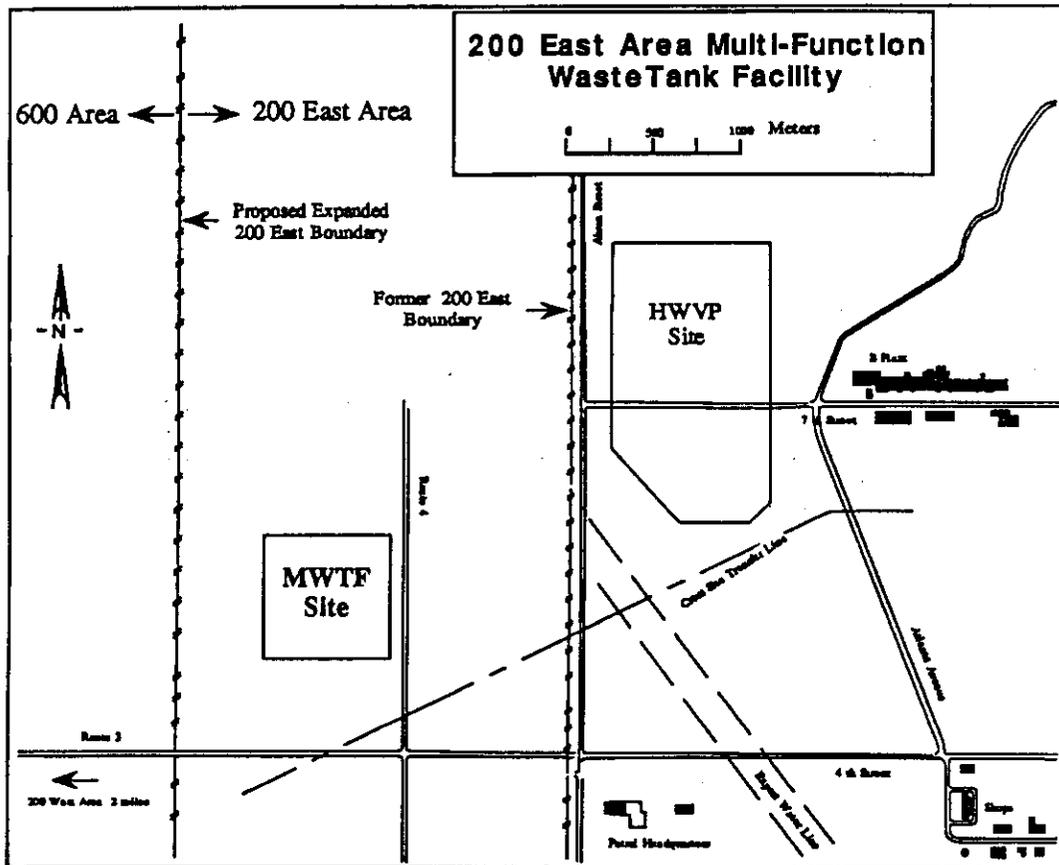


Figure 2. Future Location of the Proposed Expanded 200 East Area Multi-Function Waste Tank Facility.

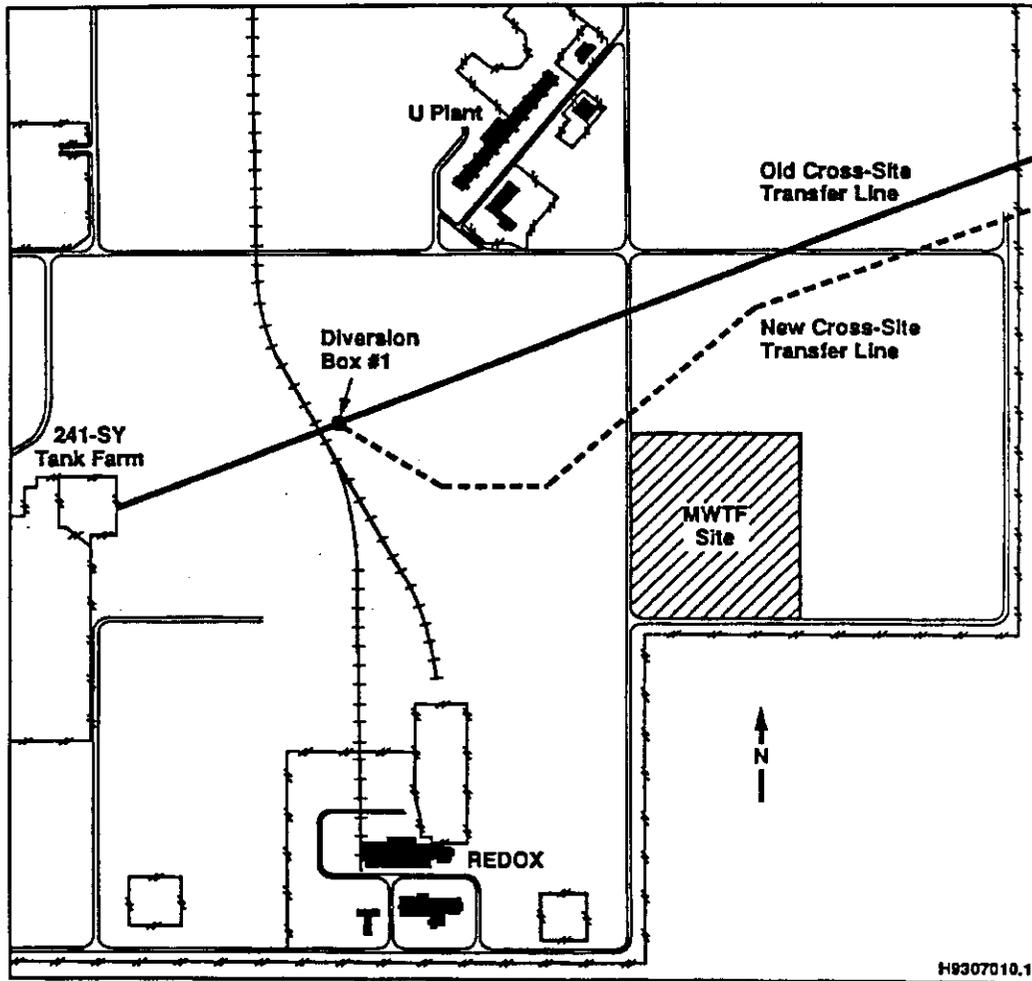


Figure 3. Future Location of the 200 West Area Multi-Function Waste Tank Facility.

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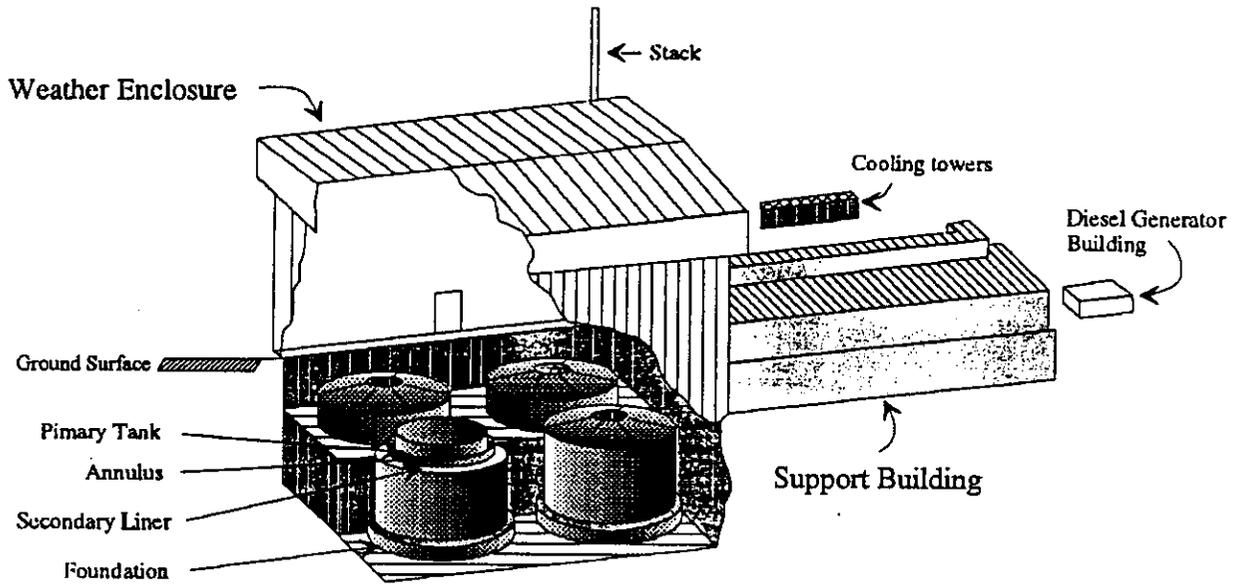


Figure 4. Multi-Function Waste Tank Facility Proposed Expanded 200 East Area.

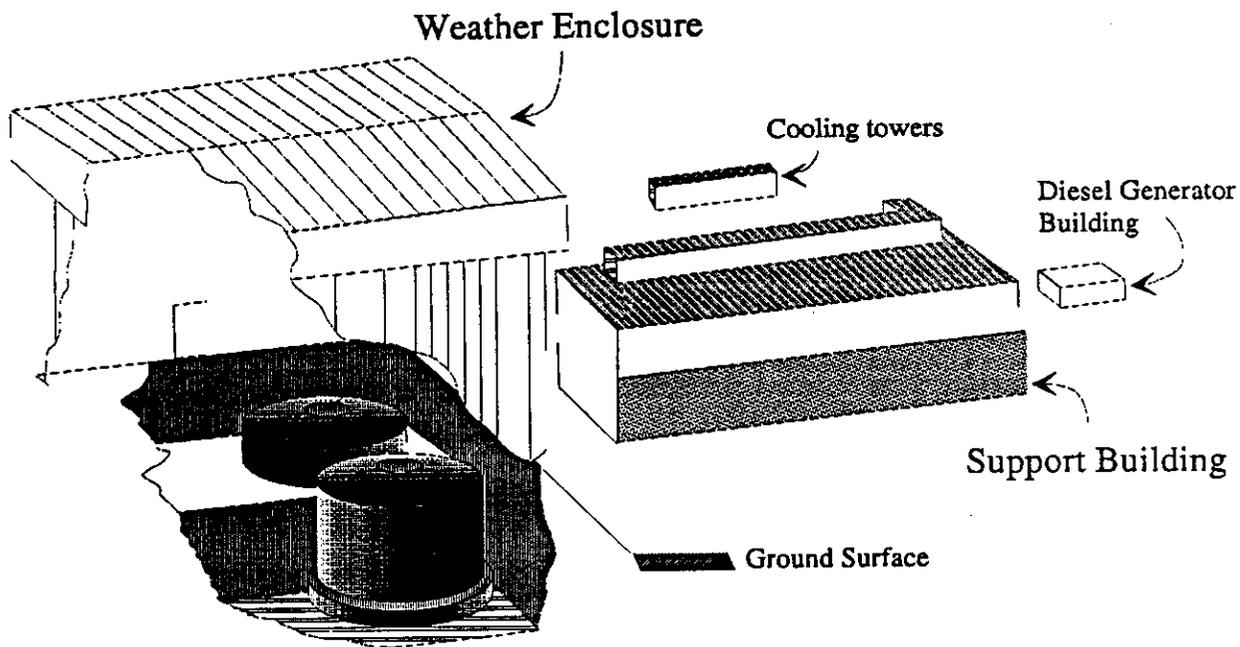


Figure 5. Multi-Function Waste Tank Facility 200 West Area.

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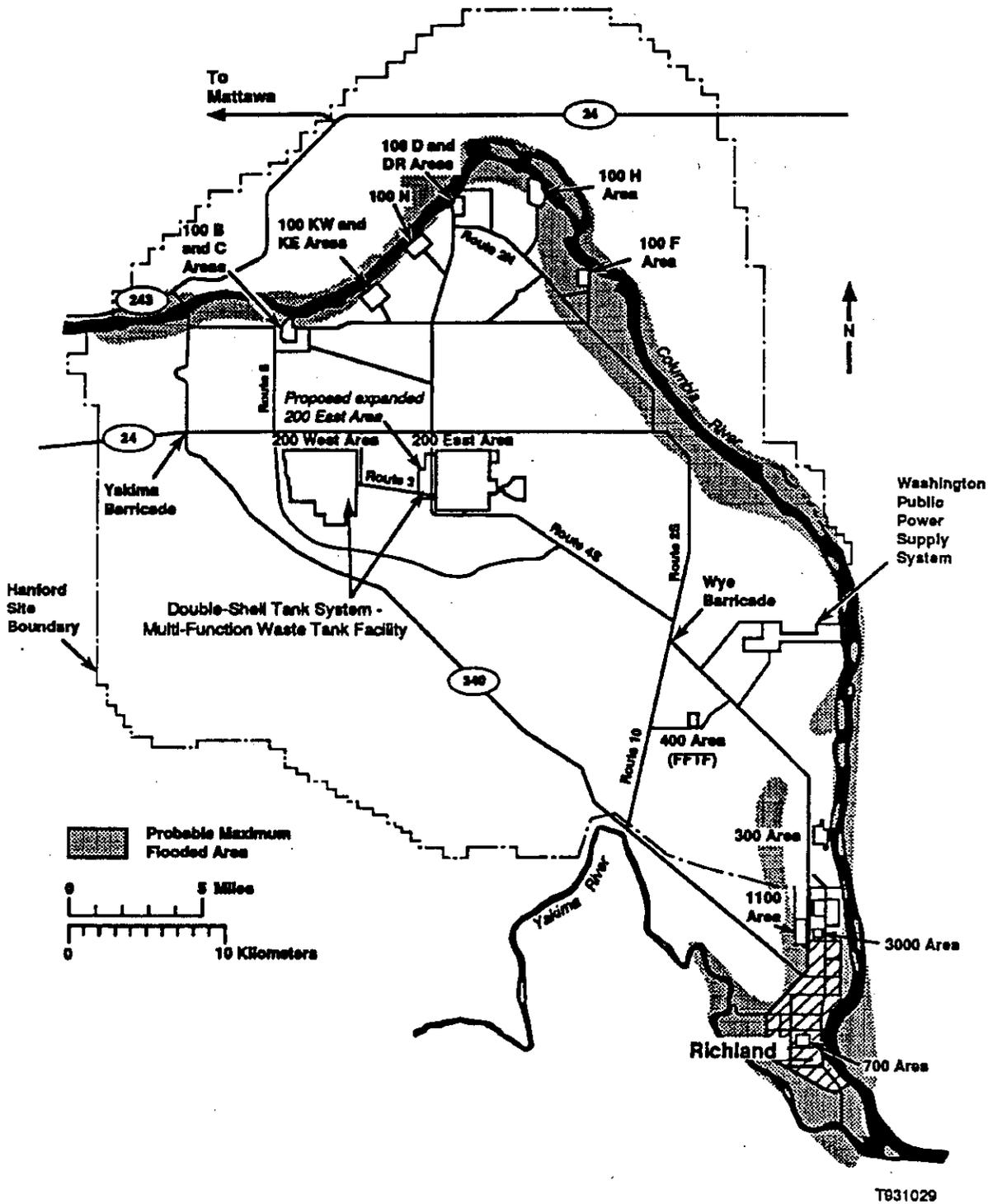
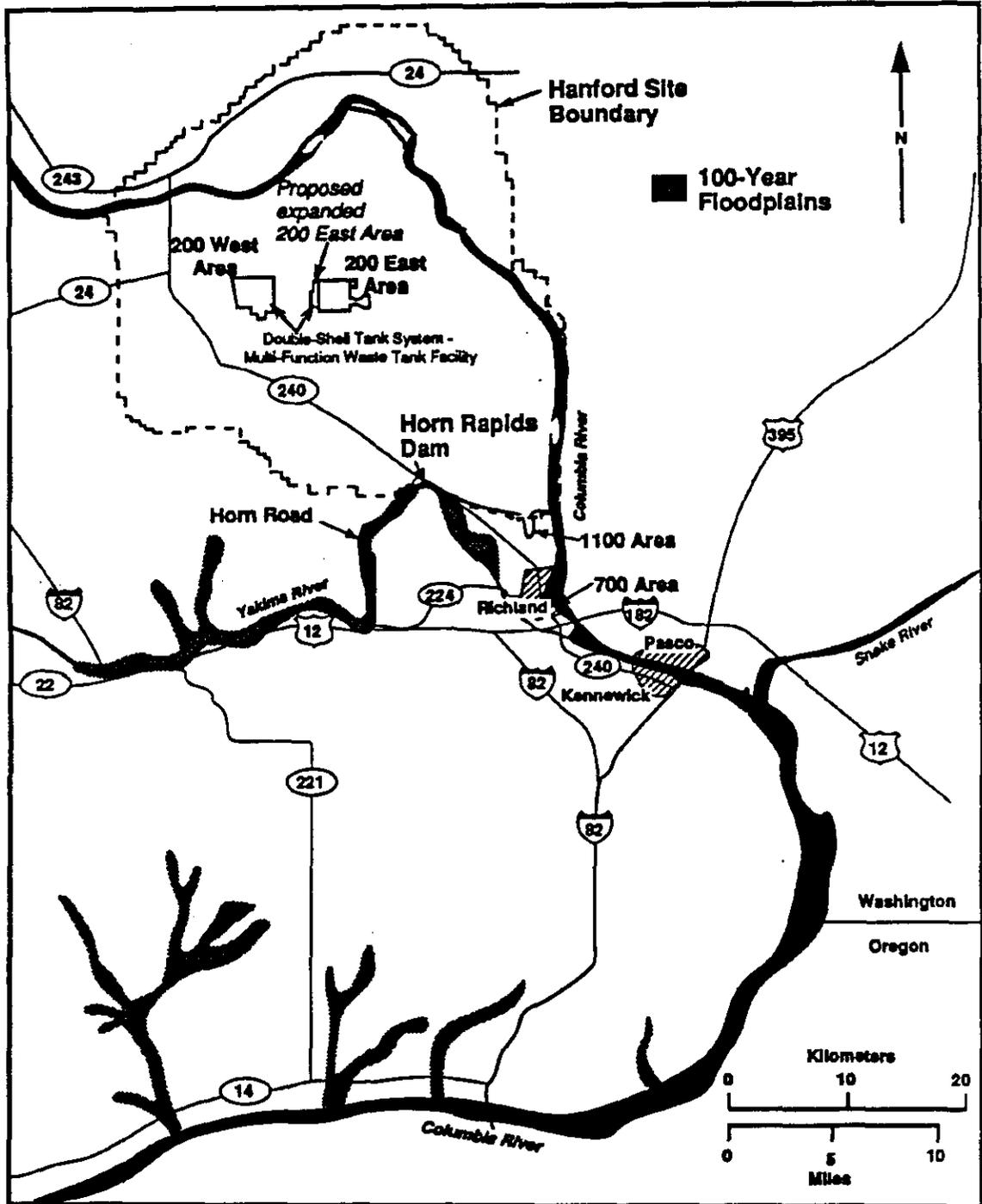


Figure 6. Columbia River Floodplain.

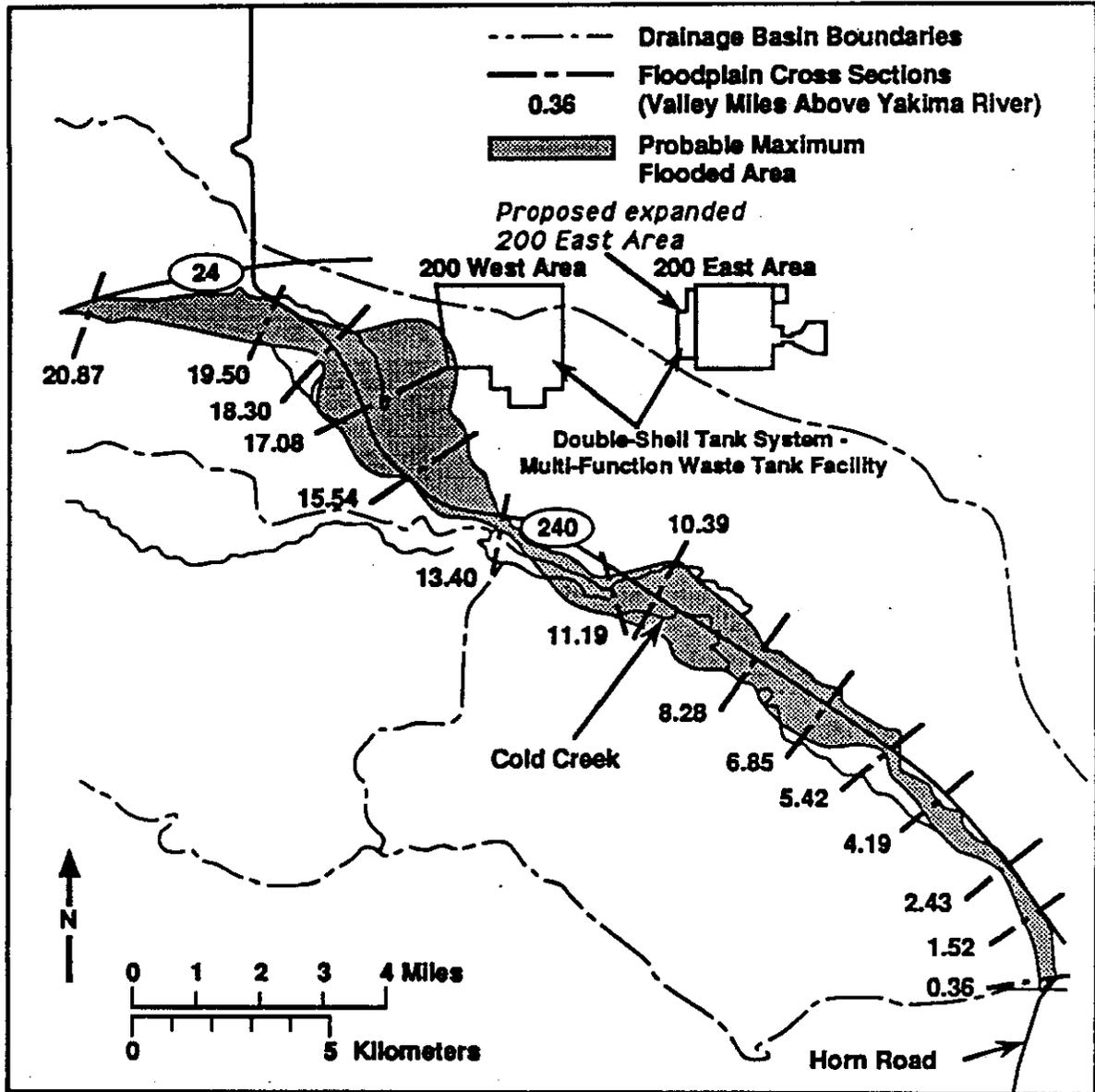
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Figure 7. Yakima River Floodplain.

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Figure 8. Cold Creek Watershed Floodplain.

APPENDICES

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- 8 C COPIES OF NOTICE OF NONCOMPLIANCE AND THE U.S. DEPARTMENT
- 9 OF ENERGY-RICHLAND OPERATIONS OFFICE RESPONSE

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APPENDIX A

LOCATION MAPS

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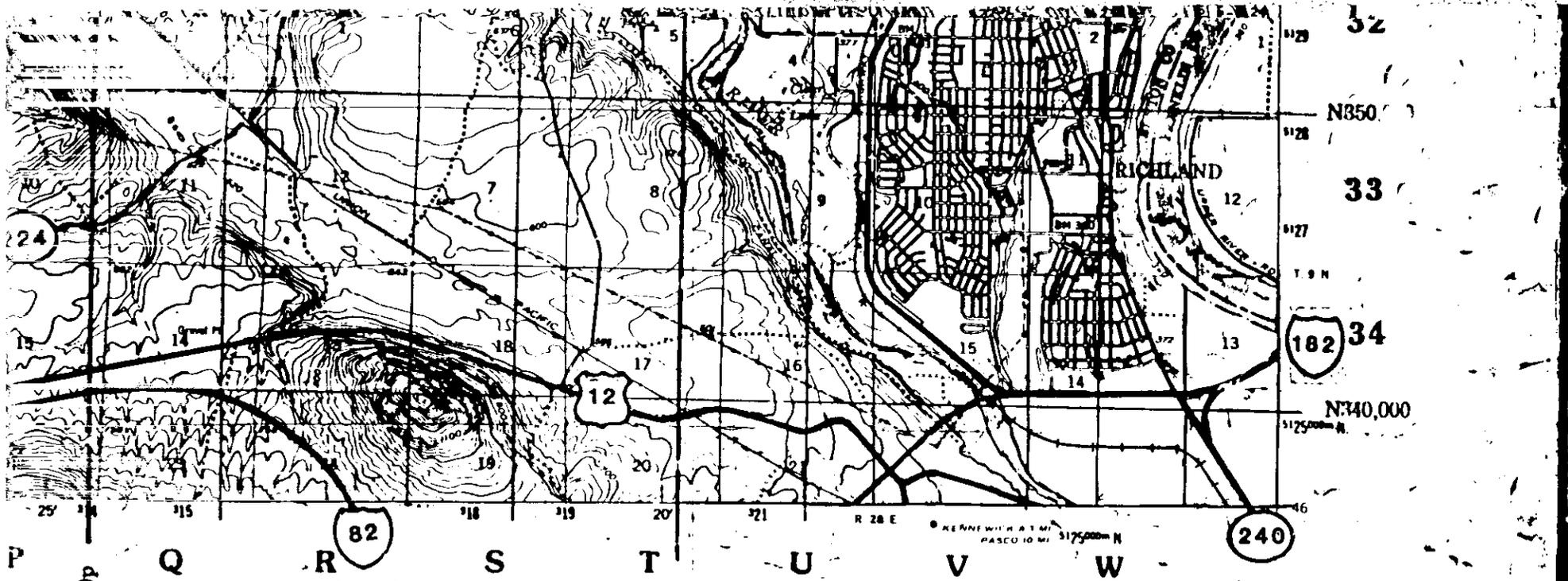
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APPENDIX A

CONTENTS

H-6-958	General Overview of Hanford Site.
H-13-000037	Multi-Function Waste Tank Facility.

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DRAWING APPROVALS		DATE	U. S. Department of Energy Richland Operations Office	
APPRO FOR QUALITY ASSURANCE				
<i>[Signature]</i>		7/89	Westinghouse Hanford Company	
APPRO				
<i>[Signature]</i>		3/89	GENERAL OVERVIEW OF HANFORD SITE	
RESPONSIBLE ENGINEER				
R.L. MARTELL		3/89		
DRAWING APPRO				
<i>[Signature]</i>		3/3/89	SCALE AS SHOWN	
DRAWN				
K.D. JUNT		3/89	BL. CIG. NO. 600 GEN	
CLASSIFICATION		BY	INDEX NO. 0100	
← NONE		NOT REQ'D	DRAWING NO. H-6-958	
			SHEET NO. 1	
			SHEETS 1	

47 5/12/93	CTB 5/1/93	REVISED PER ECN 144205	4
47 11/18/91	26 11/18/91	REV. PER ECN 170550	3
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REVISIONS			LAST REY. 3
REVISION STATUS			

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JW VOSAHLO	DATE 5/20/93	U.S. DEPARTMENT OF ENERGY DOE Field Office, Richland Westinghouse Hanford Company				
D <i>L...</i>	11-4-93	<h2 style="margin: 0;">TOPOGRAPHIC MAP</h2> <h2 style="margin: 0;">MULTI-FUNCTION WASTE TANK FACILITY</h2>				
PVD <i>R...</i>	11/4/93					
GR <i>Ba...</i>	11/4/93					
		SIZE F	BLDG NO 200E	INDEX NO 0110	DWG NO H-13-000037	REV 0
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OFFICIAL RELEASE
 BY NRC
 DATE 11/07/01 1993

JW VOSAHO	7-6-93
<i>[Signature]</i>	11-1-93
VD <i>[Signature]</i>	11/4/93
EA Kell	11/4/93

U.S. DEPARTMENT OF ENERGY
 DOE Field Office, Richland
 Westinghouse Hanford Company

**TOPOGRAPHIC MAP
 MULTI-FUNCTION WASTE
 TANK FACILITY**

SIZE F	BLDG NO 200W	INDEX NO 0110	DWG NO H-13--000037	REV 0
SCALE AS NOTED EDT 602689			SHEET 2 OF 2	

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APPENDIX B

**STATE ENVIRONMENTAL POLICY ACT
ENVIRONMENTAL CHECKLIST SUPPLEMENT 1**

651071606145

1 This *State Environmental Policy Act (SEPA) of 1971* Environmental
2 Checklist is a supplement to the existing SEPA Environmental Checklist for the
3 *Double-Shell Tank System Dangerous Waste Permit Application (DOE/RL-90-39)*,
4 Revision 0, dated June 28, 1991. This supplement covers the expansion of the
5 Double-Shell Tank System. This environmental checklist supplement is being
6 submitted concurrently with the *Notice of Intent for Expansion Under Interim*
7 *Status for the Double-Shell Tank System—Multi-Function Waste Tank Facility*, in
8 accordance with WAC 173-303-281(3)(a)(v).

**STATE ENVIRONMENTAL POLICY ACT
ENVIRONMENTAL CHECKLIST**

**FOR
DOUBLE-SHELL TANK SYSTEM
DANGEROUS WASTE PERMIT APPLICATION**

**SUPPLEMENT 1
CONSTRUCTION AND OPERATION OF THE
MULTI-FUNCTION WASTE TANK FACILITY**

December 1993

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

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A. BACKGROUND

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

5
6 Construction and operation of the Multi-Function Waste Tank Facility,
7 which will increase the treatment and storage capacity of the Double-
8 Shell Tank (DST) System on the Hanford Site, Richland, Washington. This
9 *State Environmental Policy Act (SEPA) of 1971* Environmental Checklist is
10 a supplement to the existing SEPA Environmental Checklist for the *Double-*
11 *Shell Tank System Dangerous Waste Permit Application* (DOE/RL-90-39)
12 Revision 0, dated June 28, 1991. The enclosed SEPA Environmental
13 Checklist Supplement is being submitted concurrently with the Hanford
14 Facility DST System — Multi-Function Waste Tank Facility Notice of Intent
15 (NOI) for expansion under interim status. Waste management activities at
16 the Hanford Facility DST System are planned to be expanded by adding six
17 double-shell multi-function waste tanks to allow additional dangerous
18 waste treatment and storage capacity.

19
20 **2. Name of applicants:**

21
22 U.S. Department of Energy, Richland Operations Office (DOE-RL) and
23 Westinghouse Hanford Company (Westinghouse Hanford).
24

25 **3. Address and phone number of applicants and contact persons:**

26
27 U.S. Department of Energy
28 Richland Operations Office
29 P.O. Box 550
30 Richland, Washington 99352
31
32 Westinghouse Hanford Company
33 P.O. Box 1970
34 Richland, Washington 99352

32 **Contact:**

33
34 J. D. Bauer, Program Manager
35 Office of Environmental Assurance,
36 Permits, and Policy
37 (509) 376-5441
38
39 R. E. Lerch, Deputy Director
40 Restoration and Remediation
41 (509) 376-5556

39 **4. Date checklist prepared:**

40
41 December 1993
42

43 **5. Agency requesting the checklist:**

44
45 Washington State
46 Department of Ecology
47 P.O. Box 47600
48 Olympia, Washington 98504-7600

1 6. Proposed timing or schedule: (including phasing, if applicable):
2

3 This SEPA Environmental Checklist Supplement is being submitted
4 concurrently with the Hanford Facility DST System — Multi-Function Waste
5 Tank Facility NOI. The NOI is submitted in accordance with the
6 Washington State Department of Ecology (Ecology) *Dangerous Waste*
7 *Regulations*, Washington Administrative Code (WAC) 173-303-281, "Notice of
8 Intent", which requires that dangerous waste facility owners and/or
9 operators submit a NOI before submittal of a permit application for new
10 or expanded dangerous waste treatment, storage, and/or disposal units.
11 After submittal of the NOI, there will be an opportunity for public
12 notification and review for 150 days. This proposed project is an
13 interim status expansion of the existing Hanford Facility DST System.
14 The current Part A dangerous waste permit application for the Hanford
15 Facility DST System would be modified and submitted after the public
16 comment period.
17

18 7. Do you have any plans for future additions, expansion, or further
19 activity related to or connected with this proposal? If yes, explain.
20

21 This proposed expansion would add six additional DSTs to the existing
22 Hanford Facility DST System. Two 1.16-million-gallon (4.4-million liter)
23 underground, stainless steel double-shell storage tanks will be located
24 in the 200 West Area and four 1.16-million gallon (4.4-million liter)
25 underground, stainless steel double-shell storage tanks will be located
26 in the proposed expanded 200 East Area. The additional tank capacity is
27 needed to provide safe and environmentally acceptable treatment and
28 storage capacity to handle waste generated during single-shell tank and
29 DST remediation and retrieval activities. No additional DST projects are
30 proposed at this time.
31

32 8. List any environmental information you know about that has been prepared,
33 or will be prepared, directly related to this proposal.
34

35 This SEPA Environmental Checklist Supplement is being submitted to
36 Ecology concurrently with the NOI for the Hanford Facility DST System —
37 Multi-Function Waste Tank Facility. A revision of the Part A permit
38 application for the Hanford Facility DST System would be submitted at
39 least 150 days after submission of the Hanford Facility DST System —
40 Multi-Function Waste Tank Facility NOI in accordance with
41 WAC 173-303-281. Part B dangerous waste permit application documentation
42 for the Hanford Facility DST System was submitted on June 28, 1991.
43

44 An environmental assessment (EA) currently is being prepared providing
45 detailed information on this proposed Multi-Function Waste Tank Facility.
46

47 General information concerning the Hanford Facility environment can be
48 found in the *Hanford Site National Environmental Policy Act (NEPA)*
49 *Characterization*, PNL-6415, Revision 5, December 1992. This document is
50 updated annually by Pacific Northwest Laboratory, and provides current
51 information concerning climate and meteorology; ecology; history and

1 archeology; socioeconomics; land use and noise levels; and geology and
2 hydrology. These baseline data for the Hanford Site and its past
3 activities are useful for evaluating proposed activities and their
4 potential environmental impacts.
5

- 6 9. Do you know whether applications are pending for government approvals of
7 other proposals directly affecting the property covered by your proposal?
8 if yes, explain.
9

10 No applications to government agencies are known to be pending for this
11 proposed action.
12

- 13 10. List any government approvals or permits that will be needed for your
14 proposal, if known.
15

16 Ecology is the lead regulatory agency authorized to approve the Hanford
17 Facility DST System Part B dangerous waste permit application pursuant to
18 the requirements of WAC 173-303-400 and 40 Code of Federal Regulations
19 (CFR) Part 265, Subpart G. The NOI provides public notice of the intent
20 to expand the waste treatment and storage capacity of the DST System.
21

22 Other approvals or permits that might be required at this time would
23 include those pursuant to the following regulations:
24

- 25 • Radioactive Air Emissions Program, administered by the State of
26 Washington Department of Health (DOH) pursuant to WAC 246-247
27
- 28 • National Emission Standards for Hazardous Air Pollutants, administered
29 by the Environmental Protection Agency (EPA) pursuant to 40 CFR 61,
30 Subpart H
31
- 32 • Notice of Construction (NOC), administered by Ecology and Benton-
33 Franklin-Walla Walla Counties Air Pollution Control Authority (APCA)
34 pursuant to WAC 173-400, WAC 173-460, and General Regulation 80-7
35
- 36 • State Waste Discharge Permit, administered by Ecology pursuant to
37 WAC 173-216
38
- 39 • Engineering Plans and Reports for Construction of Wastewater
40 Facilities, administered by Ecology pursuant to WAC 173-240
41
- 42 • On-Site Sewage Systems, administered by DOH pursuant to WAC 246-272
43
- 44 • Storm Water Discharge Permits, administered by EPA Region 10 pursuant
45 to 40 CFR 122, 123, and 124.
46

47 These requirements would be clarified upon approval of the NOI.
48

- 1 11. Give brief, complete description of your proposal, including the proposed
2 uses and the size of the project and site. There are several questions
3 later in this checklist that ask you to describe certain aspects of your
4 proposal. You do not need to repeat those answers on this page.
5

6 The Multi-Function Waste Tank Facility would provide additional interim
7 confinement (storage) of mixed waste to support resolution/remediation of
8 the tank safety issues and continued retrieval and operations activities.
9 The Multi-Function Waste Tank Facility will consist of six 1.16-million
10 gallon (4.4-million liter) underground, stainless steel DSTs and
11 associated systems. Two 1.16-million gallon (4.4-million liter)
12 underground, stainless steel DSTs will be located in the 200 West Area
13 and four 1.16-million gallon (4.4-million liter) underground, stainless
14 steel DSTs will be located in the proposed expanded 200 East Area.
15

16 The Multi-Function Waste Tank Facility would be constructed in both the
17 200 West Area and the proposed expanded 200 East Area of the Hanford
18 Facility, Benton County, Washington. The 200 West Area DSTs would be
19 located at the southeast corner of Beloit Avenue and 16th Street.
20 Approximately 25 acres (10 hectares) of land would be leveled and cleared
21 to facilitate construction. An additional 6 acres (2 hectares) would be
22 leveled and graded to provide a construction access road and construction
23 spoils pile. The proposed expanded 200 East Area DSTs would be located
24 in the northwest corner of Route 3 and Route 4S. Approximately 24 acres
25 (9 hectares) of land in the proposed expanded 200 East Area would be
26 leveled and cleared to facilitate construction. An additional 13 acres
27 (5 hectares) would be leveled and graded to provide a construction access
28 road and construction spoils pile. The Multi-Function Waste Tank
29 Facility would be arranged to provide ease of operation and maintenance.
30 Electric power, raw water, steam, sanitary water, and process lines would
31 be routed to the sites.
32

33 The main structures that will house each of the Multi-Function Waste Tank
34 Facility sites are a weather enclosure and a support building. The
35 weather enclosure would provide year-around operational and maintenance
36 capabilities. The support building would contain the ventilation systems
37 and related equipment, in addition to a sampling room, changerooms,
38 control room, offices, and other support areas.
39

40 Each underground DST would consist of two main components: an outer
41 structure made of concrete lined with a secondary stainless steel liner
42 to contain any leakage, and a primary tank that is a completely enclosed
43 stainless steel structure within the secondary stainless steel liner. An
44 annular space would separate the secondary liner from the primary tank.
45 This space would allow installation of leak detection devices and
46 inspection equipment.
47

48 Transfer lines would be installed to provide connections to existing TSD
49 units and storage tank systems. The primary tank ventilation system and
50 heat removal system will be designed with adequate capacity to remove
51 heat generated in the tanks. The primary ventilation system would
52 consist of a once-through loop that will be cooled. The once-through

1 system would be designed to maintain negative pressure in the tanks and
2 to exhaust to the atmosphere after passing through moisture-removing and
3 filtering equipment.

4
5 A distributive control system would monitor, control, alarm, and record
6 all Multi-Function Waste Tank Facility process systems and equipment.
7 The distributed control system would be designed to maintain parameters
8 in the normal operating range. In the event an abnormal condition occurs
9 or equipment malfunctions, the distributed control system would be
10 designed to alarm the condition in the control room, while actuating the
11 safety features provided in the Multi-Function Waste Tank Facility
12 design.

13
14 Thermocouples, moisture analyzers, and a gas chromatograph would be
15 installed for the Multi-Function Waste Tank Facility system. Liquid
16 waste and primary tank gas sampling and monitoring would be provided.
17 Stack, mixing pump, leak detection well, annulus exhauster, annulus sump
18 level, and corrosion monitoring would be installed. Radiation detection
19 devices would be located throughout the Multi-Function Waste Tank
20 Facility. Two new substations for electrical power would be installed
21 near the ventilation buildings. Backup power would be provided by diesel
22 generators.

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

33
34 The proposed Multi-Function Waste Tank Facility would be located on two
35 sites, one in the southeast portion of the 200 West Area, and one in the
36 proposed expanded 200 East Area; both on the Hanford Facility,
37 approximately 30 miles (48 kilometers) northwest of the city of Richland,
38 Washington. The section, township, and range for each area are as
39 follows: for the 200 West Area site, Section 7, Township 12N, Range 26E;
40 and for the proposed expanded 200 East Area site, Section 4,
41 Township 12N, Range 26E. A map and site plans are included with the
42 Hanford Facility DST System — Multi-Function Waste Tank Facility NOI.

TO BE COMPLETED BY APPLICANT

EVALUATION FOR
AGENCY USE ONLY

B. ENVIRONMENTAL ELEMENTS

1. Earth

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

Flat.

b. What is the steepest slope on the site (approximate percent slope)?

The approximate slope of the land in the 200 Areas at the proposed Multi-Function Waste Tank Facility is less than 2 percent.

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

The soil types in the 200 Areas and around the proposed Multi-Function Waste Tank Facility locations consist mainly of eolian and fluvial sands and gravel. More detailed information concerning specific 200 West Area and the proposed expanded 200 East Area soil classifications can be found in the *Hanford Site National Environmental Policy Act (NEPA) Characterization*, PNL-6415, Revision 5, December 1992. Farming is not permitted on the Hanford Site.

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

No.

TO BE COMPLETED BY APPLICANT

EVALUATION FOR

AGENCY USE ONLY

- 1 e. Describe the purpose, type, and approximate quantities of
2 any filling or grading proposed. Indicate source of fill.
3

4 Approximately 49 acres (19 hectares) would be leveled and
5 cleared for construction on the two Multi-Function Waste
6 Tank Facility sites. An additional 19 acres (7 hectares)
7 would be leveled temporarily and graded to provide
8 construction access roads and construction spoils pile
9 areas. Any required fill would be taken from existing site
10 pits.
11

- 12 f. Could erosion occur as a result of clearing, construction,
13 or use? If so, generally describe.
14

15 Minor erosion might occur temporarily during clearing and
16 construction because of the size of the proposed
17 construction site, which is several acres (hectares).
18 However, good engineering practices would take place to
19 control any excess erosion.
20

- 21 g. About what percent of the site will be covered with
22 impervious surfaces after project construction (for
23 example, asphalt or buildings)?
24

25 The Multi-Function Waste Tank Facility area covered with
26 impervious surfaces would be as follows:
27

- | | | | |
|----------------|---------------------|------------------------|--|
| 28 • Weather | | | |
| 29 enclosures | 162,000 square feet | (15,050 square meters) | |
| 30 | | | |
| 31 • Support | | | |
| 32 buildings | 141,000 square feet | (13,000 square meters) | |
| 33 | | | |
| 34 • Generator | | | |
| 35 building | 2,500 square feet | (230 square meters) | |
| 36 | | | |
| 37 • Asphalt | 100,000 square feet | (9,290 square meters) | |
| 38 | | | |
| 39 Totals | 323,500 square feet | (30,050 square meters) | |
| 40 | | | |

41 Approximately 15 percent (4,500 square meters) of the
42 estimated 49 acres (19 hectares) of the two Multi-Function
43 Waste Tank Facility locations would be covered by
44 impervious surfaces.
45

EVALUATION FOR

TO BE COMPLETED BY APPLICANT

AGENCY USE ONLY

- 1 h. Proposed measures to reduce or control erosion, or other
2 impacts to the earth, if any:
3

4 The finished grade and the areas disturbed during
5 construction would be stabilized on completion of
6 construction. The spoil pile locations and borrow areas
7 would be stabilized by planting suitable vegetation. Where
8 foot traffic and motorized traffic are expected, a suitable
9 layer of crushed gravel would be used for stabilization.
10 During construction, dust would be controlled by water
11 sprinkling equipment.
12

13 2. Air
14

- 15 a. What types of emissions to the air would result from the
16 proposal (i.e., dust, automobile, odors, industrial wood
17 smoke) during construction and when the project is
18 completed? If any, generally describe and give approximate
19 quantities, if known.
20

21 Minor amounts of exhaust and dust would be generated by
22 vehicles and construction personnel during the construction
23 phase of this project. On completion of the Multi-Function
24 Waste Tank Facility, vehicular traffic would be minor
25 causing very slight amounts of automobile exhaust.
26

27 Emissions from operation of the Multi-Function Waste Tank
28 Facility are expected to be similar in magnitude and type
29 as emissions from currently active tank farms. Of major
30 concern are emissions of radionuclides and toxic air
31 pollutants. Radionuclide emissions, regulated under
32 40 CFR 61 Subpart H, WAC 173-480, and WAC 246-247, would be
33 well below the standard of 10 millirem per year listed in
34 the regulations. Emissions from the Hanford Site in
35 calendar year 1991 were calculated to result in an offsite
36 dose of 0.007 millirem, and the Multi-Function Waste Tank
37 Facility is not expected to significantly increase this
38 value. Emissions of toxic air pollutants, regulated under
39 WAC 173-460, are not expected to exceed acceptable source
40 impact levels. Criteria pollutants also might be emitted,
41 but the quantity is not expected to be significant.
42

43 An airborne release could occur as a result of upset
44 conditions internally or externally. Such a release would
45 not exceed immediately dangerous to life and health
46 concentrations outside the immediate area of the potential
47 spill or release.

EVALUATION FOR

TO BE COMPLETED BY APPLICANT

AGENCY USE ONLY

1 b. Are there any off-site sources of emissions or odors that
2 may affect your proposal? If so, generally describe.

3
4 No.

5
6 c. Proposed measures to reduce or control emissions or other
7 impacts to the air, if any?

8
9 The Multi-Function Waste Tank Facility exhaust system would
10 be designed to have redundant trains containing high-
11 efficiency gas adsorbers (HEGA), high-efficiency mist
12 eliminators (HEME), high-efficiency metal fiber (HEMF)
13 filters and/or high-efficiency particulate air (HEPA)
14 filters (HEPA), any other prefilters that may be required
15 for use, and exhaust fans to reduce or control emissions to
16 the atmosphere. Good engineering practices would be
17 followed, and actions would comply with onsite procedures
18 designed to protect the environment and worker safety and
19 health. Administrative control practices will limit air
20 emissions as well as protect worker health.

21
22 3. Water

23
24 a. Surface

25
26 1) Is there any surface water body on or in the immediate
27 vicinity of the site (including year-round and seasonal
28 streams, saltwater, lakes, ponds, wetlands)? If yes,
29 describe type and provide names. If appropriate, state
30 what stream or river it flows into.

31
32 None.

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

37
38 The proposed Multi-Function Waste Tank Facility would
39 not require any activity in or near the described
40 waters and drainages.
41

EVALUATION FOR

TO BE COMPLETED BY APPLICANT

AGENCY USE ONLY

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

6 There would be no dredging or filling from or to
7 surface water or wetlands.
8

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

13 The water supply for the 200 West Area and proposed
14 expanded 200 East Area is pumped from the Columbia
15 River. The construction and operation of the proposed
16 Multi-Function Waste Tank Facility would use relatively
17 little of this overall withdrawal. The estimated
18 amounts are insignificant compared to normal daily
19 water use in the 200 Areas.
20

- 21 5) Does the proposal lie within a 100-year floodplain? If
22 so, note location on the site plan.
23

24 The proposed Multi-Function Waste Tank Facility is not
25 within the 100- or 500-year floodplains (*Hanford Site*
26 *National Environmental Policy Act (NEPA)*
27 *Characterization*, PNL-6415, Revision 5, December 1992).
28

- 29 6) Does the proposal involve any discharges of waste
30 materials to surface waters? If so, describe the type
31 of waste and anticipated volume of discharge.
32

33 No.
34

35 **b. Ground**
36

- 37 1) Will ground water be withdrawn, or will water be
38 discharged to ground water? Give general description,
39 purpose, and approximate quantities if known.
40

41 No groundwater would be withdrawn in support of this
42 project, and water would not be discharged to the
43 aquifer. In the vicinity of the proposed
44 Multi-Function Waste Tank Facility, the depth to
45 groundwater is over 240 feet (73 meters).
46

EVALUATION FOR

TO BE COMPLETED BY APPLICANT

AGENCY USE ONLY

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

9
10 Sanitary waste from the changerooms, bathrooms, and
11 lunchroom would be piped to two onsite 3,000-gallon
12 (11,356-liter) septic tank systems that would include a
13 disposal field of approximately 3,300 square feet
14 (307 square meters). Based on an estimated peak daily
15 occupancy of 60 operations personnel at each site
16 (130 personnel during construction at each site), the
17 sewage systems would be sized for a 1,650 gallons
18 (6,246 liters) per day flowrate.

19
20 c. Water Run-off (including storm water)

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

27
28 The Hanford Facility receives only 6 to 7 inches
29 (15.2 to 17.8 centimeters) of annual precipitation.
30 Precipitation collection from the proposed buildings
31 and parking surfaces would be controlled by channeling
32 water flow run-off to the north and south at the site
33 boundary. This precipitation does not reach the
34 groundwater or surface waters. Precipitation would not
35 come in contact with any of the liquid mixed waste
36 contained by the proposed Multi-Function Waste Tank
37 Facility.

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

41
42 Yes, if in the remote possibility that the liquid waste
43 stored in the tanks were to escape from both primary
44 and secondary containment equipment. Operation of
45 these sites would be monitored, and procedures would be
46 in place to prevent or respond to releases to the
47 ground or surface waters. Water run-off would not

9413094.072

EVALUATION FOR

TO BE COMPLETED BY APPLICANT

AGENCY USE ONLY

1 reach groundwater or surface waters due to sound
2 engineering practices.

- 3
4 d. Proposed measures to reduce or control surface, ground, and
5 run-off water impacts, if any:
6

7 The disposal of surface drainage from storm water and
8 snow melt is through natural percolation. Finished
9 grading of the site would provide both run-on and
10 run-off control for the Multi-Function Waste Tank
11 Facility to prevent possible flooding. All waste tanks
12 and associated piping would have double containment to
13 preclude any contact with water run-off.
14

15 4. Plants

- 16
17 a. Check or circle the types of vegetation found on the site.
18

- 19 deciduous tree: alder, maple, aspen, other
20 evergreen tree: fir, cedar, pine, other
21 shrubs
22 grass
23 pasture
24 crop or grain
25 wet soil plants: cattail, buttercup, bulrush, skunk
26 cabbage, other
27 water plants: water lily, eelgrass, milfoil, other
28 other types of vegetation
29

- 30
31 b. What kind and amount of vegetation will be removed or
32 altered?
33

34 The majority of the native vegetation, primarily consisting
35 of sagebrush/cheatgrass or Sandberg's bluegrass, would be
36 removed by this proposed project. However, the State of
37 Washington has designated shrub-steppe as a Priority
38 Habitat.
39

EVALUATION FOR

TO BE COMPLETED BY APPLICANT

AGENCY USE ONLY

1 c. List threatened or endangered species known to be on or
2 near the site.
3

4 The proposed expanded 200 East Area is habitat of the state
5 class 3 monitor species buckwheat milkvetch (*astragalus*
6 *caricinus*). The proposed activities would disturb a small
7 percentage of these habitats.
8

9 The 200 West site has been previously disturbed and does
10 not contain native vegetation. An updated biological
11 survey in the general vicinity of both sites has been
12 conducted.
13

14 d. Proposed landscaping, use of native plants, or other
15 measures to preserve or enhance vegetation on the site, if
16 any:
17

18 The finished grade and the areas disturbed during
19 construction would be stabilized on completion of the
20 project. The spoil pile locations and borrow areas would
21 be stabilized by planting suitable vegetation.
22

23 5. Animals
24

25 a. Indicate (by underlining) any birds and animals which have
26 been observed on or near the site or are known to be on or
27 near the site:
28

- 29 birds: hawk, heron, eagle, songbirds,
30 other:.....
31 mammals: deer, bear, elk, beaver,
32 other:.....
33 fish: bass, salmon, trout, herring, shellfish,
34 other:.....
35

36 The proposed expanded 200 East Area is an undisturbed site
37 that is nesting habitat for loggerhead shrike, a candidate
38 threatened and endangered species. The proposed activities
39 would disturb a small percentage of these habitats
40 available on Hanford Site. Raptors (burrowing owls,
41 ferruginous, redtail, and Swainson's hawks) are seen
42 occasionally in the 200 West Area and proposed expanded
43 200 East Area. Small passerines (sparrows, starlings,
44 finches) also are present in the general vicinity of the
45 proposed Multi-Function Waste Tank Facility. Mule deer,

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1 rabbits, badgers, and coyotes occasionally are seen in the
2 general area.

- 3
4 **b. List any threatened or endangered species known to be on or**
5 **near the site.**

6
7 Two federal and state listed threatened or endangered
8 species have been identified on the 560 square mile
9 (1,450 square kilometer) Hanford Site along the Columbia
10 River; the bald eagle and peregrine falcon. In addition,
11 the state listed white pelican, sandhill crane, and
12 ferruginous hawk also occur on or migrate through the
13 Hanford Site. Of these five species, only the ferruginous
14 hawk is likely to use the upland shrub-steppe habitat of
15 the 200 West Area and proposed expanded 200 East Area.
16 Although ferruginous hawks have been seen in the general
17 area on occasion, ferruginous hawks have not been observed
18 to use the habitat in the vicinity of the proposed
19 Multi-Function Waste Tank Facility for perching, hunting,
20 or nesting.

- 21
22 **c. Is the site part of a migration route? If so, explain.**

23
24 The Hanford Site is a part of the broad Pacific Flyway.

- 25
26 **d. Proposed measures to preserve or enhance wildlife, if any:**

27
28 This project contains no specific measures to preserve or
29 enhance wildlife.

30
31 **6. Energy and Natural Resources**

- 32
33 **a. What kinds of energy (electric, natural gas, oil, wood**
34 **stove, solar) will be used to meet the completed project's**
35 **energy needs? Describe whether it will be used for**
36 **heating, manufacturing, etc.**

37
38 Electricity and steam would be used for power, heating, and
39 ventilation at the proposed Multi-Function Waste Tank
40 Facility.

- 41
42 **b. Would your project affect the potential use of solar energy**
43 **by adjacent properties? If so, generally describe.**

44
45 No.
46

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- 1 c. What kinds of energy conservation features are included in
2 the plans of this proposal? List other proposed measures
3 to reduce or control energy impacts, if any:
4

5 Energy conservation guidelines specified by U.S. Department
6 of Energy would be applied in the design of the
7 Multi-Function Waste Tank Facility. The final analysis of
8 the energy consumption, energy conservation features, and
9 energy source alternates would be performed during
10 preliminary design.
11

12 7. Environmental Health
13

- 14 a. Are there any environmental health hazards, including
15 exposure to toxic chemicals, risk of fire and explosion,
16 spill, or hazardous waste, that could occur as a result of
17 this proposal? If so, describe.
18

19 Possible environmental health hazards to workers could
20 arise from the waste storage activities at the proposed
21 Multi-Function Waste Tank Facility. The hazard could come
22 from exposure to radioactive, dangerous, and/or mixed
23 waste. A chemical spill, release, fire, or explosion could
24 occur only as a result of a simultaneous breakdown in
25 multiple barriers or a catastrophic natural forces event.
26

- 27 1) Describe special emergency services that might be
28 required.
29

30 Hanford Site security, fire response, and ambulance
31 services are on call at all times in the event of an
32 onsite emergency. Hanford Site emergency services
33 personnel are specially trained to manage a variety of
34 circumstances involving chemical and/or radioactive
35 constituents and situations.
36

- 37 2) Proposed measures to reduce or control environmental
38 health hazards, if any:
39

40 Stringent administrative controls and engineered
41 barriers would be employed to minimize the probability
42 of even a minor incident and/or accident. All
43 personnel would be trained to follow proper procedures
44 during the storage and treatment operations to minimize
45 potential exposure. The Multi-Function Waste Tank
46 Facility would have systems for ventilation, radiation
47 monitoring, fire protection, and alarm capability. The

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1 heating, ventilation, and air conditioning system would
2 maintain a negative air pressure on the complex.
3

4 Chemical and radiological safety hazards would be
5 mitigated by preventing direct contact with the
6 residual chemical constituents; HEPA filtration of all
7 offgas streams; and protective clothing, appropriate
8 training, and respiratory protection used by onsite
9 personnel as necessary.
10

11 **b. Noise**

- 12
13 1) What type of noise exists in the area which may affect
14 your project (for example: traffic, equipment,
15 operation, other)?
16

17 While there is a minor amount of traffic, operation,
18 and equipment noise in the vicinity, it is not expected
19 to affect personnel at the proposed Multi-Function
20 Waste Tank Facility.
21

- 22 2) What types and levels of noise would be created by or
23 associated with the project on a short-term or a long-
24 term basis (for example: traffic, construction,
25 operation, other)? Indicate what hours noise would
26 come from the site.
27

28 Some amount of noise from grading equipment and
29 construction would occur only during construction, and
30 would cease upon completion of the Multi-Function Waste
31 Tank Facility. After operation, minor amounts of noise
32 from traffic and equipment are expected primarily
33 during day shift hours.
34

- 35 3) Proposed measures to reduce or control noise impacts,
36 if any:
37

38 If Occupational Safety and Health Administration noise
39 standards are exceeded, appropriate measures to protect
40 workers would be employed.
41

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1 8. Land and Shoreline Use

- 2
3 a. What is the current use of the site and adjacent
4 properties?

5
6 The proposed Multi-Function Waste Tank Facility is part of
7 the U.S. Government-owned Hanford Site, which is used for
8 the management of waste associated with the cleanup from
9 past and/or present production of special nuclear
10 materials, and for energy research. Commercial activities
11 on the Hanford Site include a nuclear power plant and a
12 Washington State administered low-level burial area
13 operated by US Ecology.

- 14
15 b. Has the site been used for agriculture? If so, describe.

16
17 No portion of the 200 West Area and proposed expanded
18 200 East Area has been used for agricultural purposes
19 since 1943, if ever.

- 20
21 c. Describe any structures on the site.

22
23 There are no structures currently on the proposed sites.

- 24
25 d. Will any structures be demolished? If so, what?

26
27 Yes. A railroad and tower will be removed from the
28 proposed expanded 200 East Area.

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

31
32 The Hanford Site is zoned as an Unclassified Use (U)
33 district by Benton County.

- 34
35 f. What is the current comprehensive plan designation of the
36 site?

37
38 The 1985 Benton County Comprehensive Land Use Plan
39 designates the Hanford Site as the "Hanford Reservation".
40 Under this designation, land on the Hanford Site may be
41 used for "activities nuclear in nature". Nonnuclear
42 activities are authorized "if and when DOE approval for
43 such activities is obtained".
44

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1 g. If applicable, what is the current shoreline master program
2 designation of the site?
3

4 Does not apply.
5

6 h. Has any part of the site been classified as an
7 "environmentally sensitive" area? If so, specify.
8

9 Yes. The State of Washington has designated shrub-steppe
10 as a Priority Habitat.
11

12 i. Approximately how many people would reside or work in the
13 completed project?
14

15 A staff of 40 to 60 operating personnel at each site would
16 be required to perform maintenance and provide data
17 collection services at the proposed Multi-Function Waste
18 Tank Facility.
19

20 j. Approximately how many people would the completed project
21 displace?
22

23 None.
24

25 k. Proposed measures to avoid or reduce displacement impacts,
26 if any:
27

28 Does not apply.
29

30 l. Proposed measures to ensure the proposal is compatible with
31 existing and projected land uses and plans, if any:
32

33 Refer to answer to checklist question B.8.f.
34

35 9. Housing
36

37 a. Approximately how many units would be provided, if any?
38 Indicate whether high, middle, or low-income housing.
39

40 None.
41

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

45 None.
46

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

3
4 Does not apply.
5

6 10. Aesthetics
7

8 a. What is the tallest height of any proposed structure(s),
9 not including antennas; what is the principal exterior
10 building material(s) proposed?

11
12 The metal weather enclosures over the six DSTs would be
13 approximately 120 feet (36 meters) high.
14

15 b. What views in the immediate vicinity would be altered or
16 obstructed?

17
18 A view looking north from 4th Street would be blocked by
19 the construction of the proposed expanded 200 East Area
20 site of the Multi-Function Waste Tank Facility. A view
21 looking north from 13th Street would also be blocked by the
22 construction of the 200 West Area portion of the
23 Multi-Function Waste Tank Facility.
24

25 c. Proposed measures to reduce or control aesthetic impacts,
26 if any:

27
28 None.
29

30 11. Light and Glare
31

32 a. What type of light or glare will the proposal produce?
33 What time of day would it mainly occur?

34
35 The exterior perimeter of the Multi-Function Waste Tank
36 Facility buildings will be provided with a minimum
37 illumination of 5 footcandles. All exterior lighting will
38 be low-pressure sodium light fixtures. This lighting would
39 be provided during days of low visibility and during
40 evening hours.
41

42 b. Could light or glare from the finished project be a safety
43 hazard or interfere with views?

44
45 No.
46

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1 c. What existing off-site sources of light or glare may affect
2 your proposal?

3
4 None.

5
6 d. Proposed measures to reduce or control light and glare
7 impacts, if any:

8
9 None.

10
11 12. Recreation

12
13 a. What designated and informal recreational opportunities are
14 in the immediate vicinity?

15
16 None.

17
18 b. Would the proposed project displace any existing
19 recreational uses? If so, describe.

20
21 No.

22
23 c. Proposed measures to reduce or control impacts on
24 recreation, including recreation opportunities to be
25 provided by the project or applicant, if any?

26
27 None.

28
29 13. Historic and Cultural Preservation

30
31 a. Are there any places or objects listed on, or proposed for,
32 national, state, or local preservation registers known to
33 be on or next to the site? If so, generally describe.

34
35 At this time, no places or objects on or next to these
36 sites are under consideration for, or on, any lists or
37 registers.

38
39 b. Generally describe any landmarks or evidence of historic,
40 archaeological, scientific, or cultural importance known to
41 be on or next to the site.

42
43 None have been identified. Personnel from the Pacific
44 Northwest Laboratory Hanford Cultural Resources Laboratory
45 conducted a historic and cultural resources review of both
46 sites of the Multi-Function Waste Tank Facility and found

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no cultural or historic properties within the project areas.

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

Does not apply.

14. Transportation

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

The Hanford Site is not accessed by public streets or highways, however, the following information is provided. Route 4S, generally serves the 200 West Area and the north proposed expanded 200 East Area.

Due east of the proposed expanded 200 East Area portion of the Multi-Function Waste Tank Facility site is Route 4S, with Route 3 to the south. During construction, a temporary 20-foot (6-meter) construction road would be constructed to Route 4S to provide temporary access to the site. On completion of the proposed action, a 22-foot (7-meter) paved road over the temporary access road to Route 4S would provide access to the proposed expanded 200 East Area site.

Due south of the proposed 200 West Area portion of the Multi-Function Waste Tank Facility site is 13th Street, with Beloit Avenue to the west. During construction, a temporary 20-foot (6-meter) construction road would be constructed to either of these two roads to provide temporary access to the site. On completion of the proposed action, a 22-foot (7-meter) paved road over the temporary access road to the 200 West site would be constructed.

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

The proposed Multi-Function Waste Tank Facility is not accessible to the public and is not served by public transit.

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- c. How many parking spaces would the completed project have?
How many would the project eliminate?

The Multi-Function Waste Tank Facility will have 80 asphalt parking spaces and 100 gravel parking spaces.

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

None.

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

There are no water, rail, or air transportation in the immediate vicinity of the proposed Multi-Function Waste Tank Facility. It is unknown at this time if the railroad on the Hanford Facility would be used for this proposed project.

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

On completion of this proposed project, the approximately 120 workers projected for operation and maintenance of the Multi-Function Waste Tank Facility would generate approximately 120 vehicular trips. A few additional vehicular trips associated with the day-to-day business of this site could result. The peak traffic volumes would occur during early morning and late afternoon hours.

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

None.

15. Public Services

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

No.

PROFORMA

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

None.

16. Utilities

a. Circle utilities currently available at the site: electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other:

None.

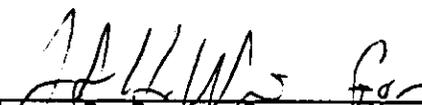
b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.

At each site, two unit substations would be provided to serve the Multi-Function Waste Tank Facility with electrical loads, a steam supply would be provided, three 12-inch (30-centimeter) lines would supply raw water to the Multi-Function Waste Tank Facility, and a septic system would be installed. The Multi-Function Waste Tank Facility telephone system would be tied into the existing telecommunications system through new underground cable duct banks.

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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 _____
12 James D. Bauer, Program Manager
13 Office of Environmental Assurance,
14 Permits, and Policy
15 U.S. Department of Energy
16 Richland Operations Office
17

12/8/93

Date

18
19
20 
21 _____
22 R. E. Lerch, Deputy Director
Restoration and Remediation
Westinghouse Hanford Company

12/8/93

Date

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STATE ENVIRONMENTAL POLICY ACT
ENVIRONMENTAL CHECKLIST

FOR

DOUBLE-SHELL TANK SYSTEM
DANGEROUS WASTE PERMIT APPLICATION
(DOE/RL-90-39)

REVISION 0

JUNE 28, 1991

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

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A. BACKGROUND

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

5
6 Permitting of the Double-Shell Tank (DST) System. Information contained
7 in this checklist pertains only to the DST System. In the context of the
8 checklist, 'site' refers to only the areas that are immediately underlain
9 by the DST System, whereas 'Site' refers to the Hanford Site.

10
11 **2. Name of applicants:**

12
13 U.S. Department of Energy-Richland Operations Office (DOE-RL); and
14 Westinghouse Hanford Company (WHC).

15
16 **3. Address and phone number of applicants and contact persons:**

17
18 U.S. Department of Energy
19 Richland Operations Office
20 P.O. Box 550
21 Richland, Washington 99352
22
23 Westinghouse Hanford Company
24 P.O. Box 1970
25 Richland, Washington 99352

26 **Contact Persons:**

27 E. A. Bracken, Director
28 Environmental Restoration Division
29 (509) 376-7277
30
31 R. E. Lerch, Manager
32 Environmental Division
33 (509) 376-5556

34
35 **4. Date checklist prepared:**

36
37 June 28, 1991.

38
39 **5. Agency requesting the checklist:**

40
41 State of Washington
42 Department of Ecology
43 Mail Stop PV-11
44 Olympia, Washington 98504-8711.

45
6. Proposed timing or schedule: (including phasing, if applicable):

The DST System operates as an interim status waste treatment unit.
Operations are planned to continue for the next 30 years and beyond. The
time of closure has not been determined at this time.

APR 16 1991

- 1 7. Do you have any plans for future additions, expansion, or further
2 activity related to or connected with this proposal? If yes, explain.
3

4 Construction of additional DSTs could be required in the future in the
5 200 Areas. These units would be addressed as modifications to the DST
6 System Dangerous Waste Permit. Routine replacement of older ancillary
7 equipment with new equipment will be carried out as required.
8

- 9 8. List any environmental information you know about that has been prepared,
10 or will be prepared, directly related to this proposal.
11

12 This SEPA Checklist is being submitted concurrently with the *Double-Shell*
13 *Tank System Dangerous Waste Permit Application* (DOE/RL-90-39), which
14 describes the steps necessary for operation and closure of the DST System
15 in accordance with regulations promulgated by the U.S. Environmental
16 Protection Agency (EPA) and Ecology as authorized by the *Resource*
17 *Conservation and Recovery Act (RCRA) of 1976* and the *Hazardous and*
18 *Solid Waste Amendments (HSWA) of 1984* (42 U.S. Code 6901-6987) and
19 chapter 70.105 RCW, the *Hazardous Waste Management Act of 1976*.
20

21 The DST System was included in the *Final Environmental Impact Statement-*
22 *Disposal of Hanford Defense High-Level, Transuranic and Tank Wastes*,
23 DOE/EIS-0113, (U.S. Department of Energy, 1987, Richland, Washington)
24

25 Archeological information for the 200 Areas is contained in *Archeological*
26 *Survey of the 200 East and 200 West Areas, Hanford Site, Washington*,
27 PNL-7264 (Pacific Northwest Laboratory, 1990, Richland, Washington)
28

29 Environmental information on radioactive waste operations at the Hanford
30 Site, including the 200 Areas, is contained in the *Final Environmental*
31 *Impact Statement-Waste Management Operations, Hanford Reservation*,
32 ERDA-1538 (Energy Research and Development Administration, 1975,
33 Washington, D.C.). Additional information is included in the *Final*
34 *Environmental Impact Statement Supplement to ERDA 1538, Double-Shell*
35 *Tanks for Defense High-Level Radioactive Waste Storage*, DOE/EIS-0063,
36 (U.S. Department of Energy, 1980, Richland, Washington).
37

38 General Hanford Site information is found in *Hanford Site National*
39 *Environmental Policy Act (NEPA) Characterization*, PNL-6415 Rev. 2
40 (Pacific Northwest Laboratory, 1989, Richland, Washington).
41

- 42 9. Do you know whether applications are pending for government approvals of
43 other proposals directly affecting the property covered by your proposal?
44 If yes, explain.
45

46 Dangerous waste permit applications have been submitted for the Grout
47 Treatment Facility, the Hanford Waste Vitrification Plant, and the
48 616 Nonradioactive Dangerous Waste Storage Facility. Dangerous waste
49 permit applications will be submitted for the 242-A Evaporator, the

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1 B Plant Facility, the Liquid Effluent Retention Facility, and the PUREX
2 Plant.

- 3
4 10. List any government approvals or permits that will be needed for your
5 proposal, if known.

6
7 Ecology is the lead agency authorized to approve the dangerous waste
8 permit application for the DST System pursuant to the requirements of
9 Washington Administrative Code (WAC) 173-303-400 and 40 Code of Federal
10 Regulations (CFR) Part 265, Subpart G.

11
12 Emissions from the DSTs are permitted under the State of Washington
13 Department of Health, Radioactive Air Emissions Permit FF-01. The
14 emissions are registered in DOE/RL-89-08.

15
16 No other permits are known to be required at this time.

- 17
18 11. Give brief, complete description of your proposal, including the proposed
19 uses and the size of the project and site. There are several questions
20 later in this checklist that ask you to describe certain aspects of your
21 proposal. You do not need to repeat those answers on this page.

22
23 The proposed action is the continued operation of the DST System on the
24 Hanford Site and the eventual closure of the system after operation is
25 completed. The DST System is used to store and treat high-level,
26 transuranic, and low-level mixed waste generated at various waste
27 management units on the Hanford Site. Waste volume is reduced by
28 treating the liquid portion of the waste at the 242-A Evaporator and
29 returning the concentrated liquid waste to DST storage.

30
31 All of the tanks in the system are buried underground tanks. The DST
32 System also contains ancillary equipment including transfer lines between
33 tank farms and receiver tanks, associated valve pits, diversion boxes,
34 tank ventilation system, and tank farm piping.

35
36 The DST System consists of 28 DSTs located in six tank farms on the
37 Hanford Site. These tanks are designed for long-term (up to 50 years)
38 storage of high-activity mixed waste. Twenty four of the tanks have a
39 nominal capacity of 1.2 million gallons (4.5 million liters) and the
40 other four tanks hold 1.0 million gallons (3.8 million liters) each.
41 Five of the DST tank farms are located in the 200 East Area and one is
42 located in the 200 West Area.

43
44 The DST System includes four smaller tanks [800 to 25,000 gallons
45 (3,028 to 94,633 liters)] used primarily for lag storage of waste before
46 transfer to the large tanks or other waste management units. These tanks
47 are called 'double-contained receiver tanks' (DCRT) and are at various
48 locations in the 200 East and West Areas.
49

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1 In the future, DST waste will be retrieved, treated, and disposed of.
2 The waste will be separated into high-activity and low-activity
3 fractions. After treatment, the low-activity fraction will be mixed with
4 cement grout and disposed of in vaults on the Hanford Site. The high-
5 activity and transuranic fractions will be vitrified at the Hanford Waste
6 Vitrification Plant and be sent offsite in the form of borosilicate glass
7 for disposal in a national repository. Some low-level waste will be sent
8 from the tanks to the Grout Treatment Facility with no pretreatment. A
9 maximum of 36.2 million gallons (137.0 million liters) of waste can be
10 stored in the DST System. However, the maximum capacity is not available
11 because of operating safety requirements. Operational safety
12 requirements specify that 80 percent of the volume of each tank is
13 available for use. Waste stored in the tanks is generated in the
14 200 Areas chemical processing facilities and laboratories, and from
15 facilities in the 100, 300, and 400 Areas.

16
17 Details of the design, construction, location, operation, and planned
18 closure of the DST System are in the accompanying dangerous waste permit
19 application. The closure plan included with the permit application
20 discusses closure and postclosure strategies and options. All waste
21 stored in the tanks will be retrieved and processed before closure.
22 Possible closure scenarios for the DST System discussed in the closure
23 plan include the following:

- 24 • Clean closure with the removal of all contaminated equipment and soil
- 25
- 26 • Landfill closure with contaminated tanks and ancillary equipment left
- 27 in place
- 28
- 29 • Combination of landfill and clean closure with some part of the tank
- 30 system left in place and other parts removed.
- 31
- 32

- 33 12. Location of the proposal. Give sufficient information for a person to
34 understand the precise location of your proposed project, including a
35 street address, if any, and section, township, and range, if known. If a
36 proposal would occur over a range of area, provide the range or
37 boundaries of the site(s). Provide a legal description, site plan,
38 vicinity map, and topographic map, if reasonably available. While you
39 should submit any plans required by the agency, you are not required to
40 duplicate maps or detailed plans submitted with any permit applications
41 related to this checklist.

42
43 The DST System is located in the 200 East and 200 West Areas of the
44 Hanford Site, approximately 20 to 25 miles (32 to 40 kilometers)
45 northwest of the city of Richland. Five DST tank farms are in the east
46 central part of the 200 East Area and one DST tank farm is located in the
47 west central part of the 200 West Area. The receiver tanks, pipelines,
48 and other ancillary equipment are located throughout the 200 Areas in the
49 general vicinity of the tank farms. Detailed location information along

1 with site plans, topographic maps, and vicinity map are contained in the
2 accompanying *Double-Shell Tank System Dangerous Waste Permit Application*.
3

4
5 **B. ENVIRONMENTAL ELEMENTS**
6

7 **1. Earth**
8

- 9 a. General description of the site (circle one): Flat, rolling, hilly,
10 steep slopes, mountainous, other _____.
11

12 The surface is flat to gently rolling.
13

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

16 There are some cut banks and berms from construction around the edges
17 of the buried tank sites at approximately 1:1 (100 percent) slopes.
18

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

23 Soils at the site range from fine silty and sandy soil to sandy gravel
24 with good drainage characteristics. There is no farming on the
25 Hanford Site.
26

- 27 d. Are there surface indications or history of unstable soils in the
28 immediate vicinity? If so, describe.
29

30 No.
31

- 32 e. Describe the purpose, type, and approximate quantities of any filling
33 or grading proposed. Indicate source of fill.
34

35 No filling will take place during operation. Closure could require
36 some filling and grading. Quantities and sources have not been
37 determined at this time.
38

- 39 f. Could erosion occur as a result of clearing, construction, or use? If
40 so, generally describe.
41

42 Areas disturbed during initial construction of the DST System have
43 been stabilized with a gravel or soil layer. Unstable slopes have
44 been graded to prevent erosion. Future construction activities that
45 disturb the site will be stabilized using similar stabilization
46 methods.
47
48

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

4
5 Approximately 10 percent.

6
7 h. Proposed measures to reduce or control erosion, or other impacts to
8 the earth, if any:

9
10 None at this time.

11
12 **2. Air**

13
14 a. What types of emissions to the air would result from the proposal
15 (i.e., dust, automobile, odors, industrial wood smoke) during
16 construction and when the project is completed? If any, generally
17 describe and give approximate quantities, if known.

18
19 Emissions to the air from current operation include water vapor,
20 ammonia, hydrogen, and small amounts of radioactive pollutants such as
21 iodine-129, ruthenium-106, strontium-90, and cesium-137. The
22 emissions to the air result from continuous forced ventilation systems
23 maintained for the DST primary tanks and annular spaces. Some
24 automobile and/or truck exhaust emissions will be generated as a
25 result of operation, inspection, and maintenance activities.

26
27 b. Are there any off-site sources of emissions or odors that may affect
28 your proposal? If so, generally describe.

29
30 None.

31
32 c. Proposed measures to reduce or control emissions or other impacts to
33 the air, if any?

34
35 Emissions from the DST ventilation systems pass through deentrainers
36 to remove water vapor and through double banks of high-efficiency
37 particulate air filters. Emissions at each tank farm are vented
38 through a common stack. Regulatory requirements of air emissions are
39 discussed in Checklist Question A.10.

40
41 **3. Water**

42
43 a. **Surface**

44
45 1) Is there any surface water body on or in the immediate vicinity of
46 the site (including year-round and seasonal streams, saltwater,
47 lakes, ponds, wetlands)? If yes, describe type and provide names.
48 If appropriate, state what stream or river it flows into.

49
50 None.

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1 2) Will the project require any work over, in, or adjacent to (within
2 200 feet) the described waters? If yes, please describe and attach
3 available plans.

4
5 No.

6
7 3) Estimate the amount of fill and dredge material that would be
8 placed in or removed from surface water or wetlands and indicate
9 the area of the site that would be affected. Indicate the source
10 of fill material.

11
12 None.

13
14 4) Will the proposal require surface water withdrawals or diversions?
15 Give general description, purpose, and approximate quantities if
16 known.

17
18 Raw water used for flushing transfer pipelines in the DST System is
19 supplied from the Hanford Site underground (export) water system
20 that withdraws water from the Columbia River. Backflow preventers
21 are installed to prevent possibly contaminated water from entering
22 the export water system.

23
24 5) Does the proposal lie within a 100-year floodplain? If so, note
25 location on the site plan.

26
27 No.

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

32
33 No.

34
35 **b. Ground**

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

40
41 No groundwater is normally withdrawn. However, a backup water
42 supply well (well 2-E26-3) is located east of the 241-AN Tank Farm.
43 This well can supply makeup water for the 241-A-401 condensers in
44 the 241-AY and 241-AZ Tank Farms.

45
46 Steam condensate from the waste tank heating systems in the 241-AY
47 and 241-AZ Tank Farms could be discharged to the soil column in the
48 future when the heating systems are in use and the condensate could
49 reach the groundwater. Steam in the tank heating coils does not
50 come in contact with the tank waste.

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

9 Sanitary sewer systems in the offices, change rooms, and control
10 rooms supporting tank farms are discharged to the soil through
11 septic tank and drain field systems. Discharges are non-
12 radioactive and nonhazardous and are not regulated waste under
13 RCRA.
14

15 The discharge of a maximum of 800 gallons (3,028 liters) per minute
16 from the 241-A-401 condensers for the 241-AY and 241-AZ ventilation
17 systems to the 216-B-3 Pond System is made.
18

19 c. Water Run-off (including storm water)
20

21 1) Describe the source of run-off (including storm water) and method
22 of collection and disposal, if any (include quantities, if known).
23 Where will this water flow? Will this water flow into other
24 waters? If so, describe.
25

26 The Hanford Site receives an average of 6.3 inches (16 centimeters)
27 of annual precipitation that seeps into the ground through the
28 porous soils at the sites.
29

30 2) Could waste materials enter ground or surface waters? If so,
31 generally describe.
32

33 Yes, if waste were to escape from both primary and secondary
34 containment equipment. The DST System operation is monitored, and
35 procedures are in place to prevent or respond to releases to the
36 ground or surface waters.
37

38 d. Proposed measures to reduce or control surface, ground, and run-off
39 water impacts, if any:
40

41 Degradation of groundwater quality is minimized through tank and
42 ancillary equipment double containment with leak detection between the
43 primary and secondary containment systems. The ground surface in the
44 vicinity of the DST System is maintained almost level and there are no
45 hills near the DST System that channel water into the area. Drainage
46 from other localities within the 200 Areas is not directed to the tank
47 farms.
48
49

1 4. Plants

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

- 4
5 deciduous tree: alder, maple, aspen, other
6 evergreen tree: fir, cedar, pine, other
7 shrubs
8 grass
9 pasture
10 crop or grain
11 wet soil plants: cattail, buttercup, bulrush, skunk cabbage,
12 other
13 water plants: water lily, eelgrass, milfoil, other
14 other types of vegetation
15

16 Vegetation routinely is removed from portions of the DST System.
17 Other portions of the DST System contain shrubs and grasses suited to
18 an arid climate. Additional information on the Hanford Site
19 environment can be found in the final environmental impact statement
20 referenced in Checklist Question A.8.
21

22 b. What kind and amount of vegetation will be removed or altered?

23
24 There is an ongoing program to control the growth of shrubs and
25 grasses within the DST tank farms.
26

27 c. List threatened or endangered species known to be on or near the site.

28
29 None. Additional information on the Hanford Site environment can be
30 found in the environmental documents referred to in the answer to
31 Checklist Question A.8.
32

33 d. Proposed landscaping, use of native plants, or other measures to
34 preserve or enhance vegetation on the site, if any:

35
36 None.
37

38 5. Animals

39
40 a. Circle any birds and animals which have been observed on or near the
41 site or are known to be on or near the site:

42
43 birds: hawk, heron, eagle, songbirds, other:.....
44 mammals: deer, bear, elk, beaver, other:.....
45 fish: bass, salmon, trout, herring, shellfish, other:.....
46

47 Starlings, rabbits, and pigeons have been observed on the site.
48 Additional information on the Hanford Site environment can be found in
49 the environmental documents referenced in the answer to Checklist
50 Question A.8.

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- 1 b. List any threatened or endangered species known to be on or near the
2 site.
3

4 The bald eagle and the white pelican are sometimes seen on the Hanford
5 Site. Bald eagles commonly overwinter along the Columbia River about
6 10 miles (16 kilometers) from the DST System. The state of Washington
7 is attempting to promote white pelican nesting on islands in the
8 Hanford Reach of the Columbia. The pelicans commonly are not seen in
9 the 200 Areas. Additional information concerning endangered and
10 threatened species on the Hanford Site can be found in the
11 environmental documents referred to in the answer to Checklist
12 Question A.8.
13

- 14 c. Is the site part of a migration route? If so, explain.
15

16 The Hanford Site and the adjacent Columbia River are part of the broad
17 Pacific Flyway for waterfowl migration; other birds also migrate along
18 the Columbia River.
19

- 20 d. Proposed measures to preserve or enhance wildlife, if any:
21

22 None at this time.
23

24 6. Energy and Natural Resources
25

- 26 a. What kinds of energy (electric, natural gas, oil, wood stove, solar)
27 will be used to meet the completed project's energy needs? Describe
28 whether it will be used for heating, manufacturing, etc.
29

30 Electricity is used to run pumps, ventilation fans, instrument and
31 alarm systems, and for lighting. Process steam produced by coal
32 burning in the 200 Area powerhouse is used in heating coils located in
33 certain tanks.
34

- 35 b. Would your project affect the potential use of solar energy by
36 adjacent properties? If so, generally describe.
37

38 No.
39

- 40 c. What kinds of energy conservation features are included in the plans
41 of this proposal? List other proposed measures to reduce or control
42 energy impacts, if any:
43

44 None.
45
46

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1 7. Environmental Health

- 2
3 a. Are there any environmental health hazards, including exposure to
4 toxic chemicals, risk of fire and explosion, spill, or hazardous
5 waste, that could occur as a result of this proposal? If so,
6 describe.
7

8 Operation of the DST System poses certain environmental health hazards
9 through the transfer and storage of toxic chemicals and radionuclides.
10 The potential for leaks and unplanned releases exists. Operation of
11 some of the tanks has demonstrated a potential for hydrogen gas to be
12 generated from decomposition of organic compounds. In tank
13 241-SY-101, transient hydrogen buildup has been detected in quantities
14 that for a short time could approach flammable or explosive levels.
15 This buildup occurs beneath a solid waste crust in the tank and
16 periodically vents itself through the crust resulting in an increase
17 in hydrogen concentration. Hydrogen gas is produced in smaller
18 quantities in tanks 241-AN-103, -AN-104, -AN-105, and -SY-103.
19 Administrative controls are in place to prevent the accidental
20 ignition of hydrogen in these five tanks. Hydrogen gas buildup has
21 not been found to be a serious problem in the other DSTs. All of the
22 DSTs have forced ventilation exhaust systems with high-efficiency
23 particulate air filters to minimize gas buildup. Backup ventilation
24 exhaust systems are in place should an operating system fail.
25

- 26 1) Describe special emergency services that might be required.
27

28 Hanford Site security, fire response, and ambulance services are on
29 call at all times in the event of an onsite emergency.
30

- 31 2) Proposed measures to reduce or control environmental health
32 hazards, if any:
33

34 The potential for leaks and unplanned releases is minimized through
35 tank and ancillary equipment double containment with leak detection
36 between the primary and secondary systems. Hanford Site operating
37 procedures strictly are observed and personnel are trained on the
38 procedures. Systems are designed for the safe handling of
39 hazardous materials and radionuclides.
40

41 Precautions are taken to prevent ignition or reaction of
42 ignitable or reactive waste. Waste preparation requirements
43 prohibit the mixing or storing of incompatible or reactive
44 waste at the DST System.
45

46 Monitoring is being maintained at tank 241-SY-101 where concern for
47 hydrogen buildup is the greatest. Detailed studies are underway to
48 assess the severity of the problem and develop mitigative measures.
49

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1 Measures to prevent endangerment of the health of employees or the
2 public near the DST System are described in the *DST System*
3 *Dangerous Waste Permit Application*.

4
5 **b. Noise**

- 6
7 1) What type of noise exists in the area which may affect your project
8 (for example: traffic, equipment, operation, other)?

9
10 None.

- 11
12 2) What types and levels of noise would be created by or associated
13 with the project on a short-term or a long-term basis (for example:
14 traffic, construction, operation, other)? Indicate what hours
15 noise would come from the site.

16
17 Operation of the DST System produces noise from operation and
18 maintenance of equipment, principally noise from exhaust
19 ventilation fans. The level of noise is within industrial safety
20 requirements.

21
22 Minor noise can be expected from equipment and vehicles during
23 closure.

- 24
25 3) Proposed measures to reduce or control noise impacts, if any:

26
27 Stationary noise generating equipment meets the manufacturer's
28 requirements for noise suppression.

29
30 **8. Land and Shoreline Use**

- 31
32 a. What is the current use of the site and adjacent properties?

33
34 The DST System sites currently are used for waste storage.

- 35
36 b. Has the site been used for agriculture? If so, describe.

37
38 No portion of the Hanford Site, including the sites of the DST System,
39 has been used for agricultural purposes since 1943.

- 40
41 c. Describe any structures on the site.

42
43 The DST System consists of buried double-shell tanks and ancillary
44 equipment at each tank farm.

45
46 The DST structures consist of primary and secondary steel tanks with
47 an annulus between and an outer concrete shell enclosing the primary
48 and secondary tanks. The two tanks are covered by a single dome
49 structure consisting of a steel tank dome covered by a concrete shell.
50 The tanks also contain dome and annulus risers for access, pump and

1 valve pits, airlift circulators, and steam coils. The systems also
2 include tank farm piping, tank ventilation equipment buildings,
3 electrical/instrument buildings, and leak detection and monitoring
4 systems. Ancillary equipment includes transfer lines, diversion
5 boxes, valve pits, diverter stations, and catch tanks.
6

7 Detailed descriptions and drawings of the structures are contained in
8 the *DST System Dangerous Waste Permit Application*.
9

10 d. Will any structures be demolished? If so, what?
11

12 One of the options for closure is the removal and disposal of the
13 tanks and ancillary equipment.
14

15 e. What is the current zoning classification of the site?
16

17 The Hanford Site is zoned by Benton County as an Unclassified Use (U)
18 district.
19

20 f. What is the current comprehensive plan designation of the site?
21

22 The 1985 Benton County Comprehensive Land Use Plan designates the
23 Hanford Site as the "Hanford Reservation". Under this designation,
24 land on the Hanford Site be used for "activities nuclear in nature."
25 This applies to the DST System sites. Nonnuclear activities are
26 authorized "if and when DOE approval for such activities is obtained."
27

28 g. If applicable, what is the current shoreline master program
29 designation of the site?
30

31 Does not apply.
32

33 h. Has any part of the site been classified as an "environmentally
34 sensitive" area? If so, specify.
35

36 No.
37

38 i. Approximately how many people would reside or work in the completed
39 project?
40

41 There are approximately 100 employees who work in the DST System
42 operations.
43

44 j. Approximately how many people would the completed project displace?
45

46 None.
47

48 k. Proposed measures to avoid or reduce displacement impacts, if any:
49

50 Does not apply.

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- 1 1. Proposed measures to ensure the proposal is compatible with existing
2 and projected land uses and plans, if any:

3
4 Refer to answer to Checklist Question B.8.f.
5

6 9. Housing
7

- 8 a. Approximately how many units would be provided, if any? Indicate
9 whether high, middle, or low-income housing.

10 None.
11

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

14 None.
15

- 16 c. Proposed measures to reduce or control housing impacts, if any:
17

18 Does not apply.
19
20

21 10. Aesthetics
22

- 23 a. What is the tallest height of any proposed structure(s), not
24 including antennas; what is the principal exterior building
25 material(s) proposed?
26

27 The buildings in DST System generally are less than 20 feet
28 (6.1 meters) tall. The 241-SY Tank Farm lightning tower is about
29 60 feet (18.3 meters) tall. The 241-A-702 Building exhaust stack is
30 50 feet (15.2 meters) tall. Buildings either have concrete or metal
31 exterior walls.
32

- 33 b. What views in the immediate vicinity would be altered or obstructed?
34

35 None.
36

- 37 c. Proposed measures to reduce or control aesthetic impacts, if any:
38

39 None.
40
41

42 11. Light and Glare
43

- 44 a. What type of light or glare will the proposal produce? What time of
45 day would it mainly occur?
46

47 Night security lights illuminate the tank farms. Because of the
48 DST System location, the lighting does not impact offsite areas.
49

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1 b. Could light or glare from the finished project be a safety hazard or
2 interfere with views?

3
4 No.

5
6 c. What existing off-site sources of light or glare may affect your
7 proposal?

8
9 None.

10
11 d. Proposed measures to reduce or control light and glare impacts, if
12 any:

13
14 None.

15
16 12. Recreation

17
18 a. What designated and informal recreational opportunities are in the
19 immediate vicinity?

20
21 None.

22
23 b. Would the proposed project displace any existing recreational uses?
24 If so, describe.

25
26 No.

27
28 c. Proposed measures to reduce or control impacts on recreation,
29 including recreation opportunities to be provided by the project or
30 applicant, if any?

31
32 Does not apply.

33
34 13. Historic and Cultural Preservation

35
36 a. Are there any places or objects listed on, or proposed for, national,
37 state, or local preservation registers known to be on or next to the
38 site? If so, generally describe.

39
40 No places or objects listed on, or proposed for, national, state, or
41 local preservation registers are known to be on or next to the site.
42 Additional information on the Hanford Site environment can be found
43 in the environmental documents referred to in the answer to Checklist
44 Question A.8.
45

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- 1 **b. Generally describe any landmarks or evidence of historic,**
2 **archaeological, scientific, or cultural importance known to be on or**
3 **next to the site.**

4
5 There are no known archaeological, historical, or Native American
6 religious sites on or next to the DST System. Additional information
7 on the Hanford Site environment can be found in the environmental
8 documents referred to in the answer to Checklist Question A.8.
9

- 10 **c. Proposed measures to reduce or control impacts, if any:**

11
12 Contaminated soils could be removed in response to a release to the
13 environment during operations or during closure. Backfill and soil
14 used to replace excavated soil will be excavated from the surrounding
15 area or borrow sites around the Hanford Site. Before any excavation
16 proceeds, a cultural resources review will be conducted under the
17 *National Preservation Act of 1966*. Significant archaeological finds
18 could result in schedule delays until a plan to mitigate excavation
19 impacts can be devised and implemented.
20

21 **14. Transportation**

- 22
23 **a. Identify public streets and highways serving the site, and describe**
24 **proposed access to the existing street system. Show on site plans,**
25 **if any.**

26
27 Does not apply.
28

- 29 **b. Is site currently served by public transit? If not, what is the**
30 **approximate distance to the nearest transit stop?**

31
32 The DST System publicly is not accessible and, therefore, is not
33 served by public transit.
34

- 35 **c. How many parking spaces would the completed project have? How many**
36 **would the project eliminate?**

37 Adequate parking for employees is provided.
38

- 39
40 **d. Will the proposal require any new roads or streets, or improvements**
41 **to existing roads or streets, not including driveways? If so,**
42 **generally describe (indicate whether public or private).**

43
44 None.
45

- 46 **e. Will the project use (or occur in the immediate vicinity of) water,**
47 **rail, or air transportation? If so, generally describe.**

48
49 The DST System receives up to 20 rail tank car loads of waste per
50 year that are moved on the Hanford Site rail system.

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

3
4 Vehicle usage by DST System operations is minor.

5
6 g. Proposed measures to reduce or control transportation impacts, if
7 any:

8
9 None.

10
11 **15. Public Services**

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

16
17 No.

18
19 b. Proposed measures to reduce or control direct impacts on public
20 services, if any:

21
22 None.

23
24 **16. Utilities**

25
26 a. Circle utilities currently available at the site: electricity,
27 natural gas, water, refuse service, telephone, sanitary sewer, septic
28 system, other: steam

29
30 Utilities provided to the portions of the DST System included in the
31 *DST System Dangerous Waste Permit Application* include electricity,
32 water, refuse service, telephone, sanitary sewer, septic system, and
33 steam.

34
35 b. Describe the utilities that are proposed for the project, the utility
36 providing the service, and the general construction activities on the
37 site or in the immediate vicinity which might be needed.

38
39 If additional DSTs are required, supporting utilities also will be
40 provided.
41
42

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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 Robert S. Holt
10 E. A. Bracken, Director
11 Environmental Restoration Division
12 U.S. Department of Energy
13 Richland Operations Office
14
15
16

6/26/91
Date

17 R. E. Lerch
18 R. E. Lerch, Manager
19 Environmental Division
20 Westinghouse Hanford Company
21
22
23

5-22-91
Date

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APPENDIX C

**COPIES OF NOTICE OF NONCOMPLIANCE AND THE U.S. DEPARTMENT OF ENERGY,
RICHLAND OPERATIONS OFFICE RESPONSES**

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APPENDIX C-1

NOTICE OF NONCOMPLIANCE RINSING AND STORAGE OF 101-SY AIR LANCES —
JANUARY 1993

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STATE OF WASHINGTON

DEPARTMENT OF ECOLOGY

7601 W. Clearwater, Suite 102 • Kennewick, Washington 99336 • (509) 546-2990

January 15, 1993

CERTIFIED MAIL

Mr. John Wagoner, Manager
U.S. Department of Energy
Richland Operations Office
P.O. Box 550
Richland, WA 99352

EPA/State
ID Number: (WA7890008967)

Date and Time of Inspection(s):
November 6, 1992 1400 - 1600 hours
December 11, 1992 1300 - 1330 hours
January 14, 1993 1200 - 1700

Mr. Tom Anderson, President
Westinghouse Hanford Company
P.O. Box 1970
Richland, WA 99352

Messrs. Wagoner and Anderson:

Re: Rinsing and Storage of 101 SY Air Lances

Thank you for the assistance of United States Department of Energy (USDOE-RL) and Westinghouse Hanford Company (WEC) personnel during the investigation of the removal, treatment, and transportation of air lances from tank 101 SY. Due to extenuating circumstances, Ecology granted a 30-day extension, as allowed by WAC 173-303-200(1)(a), to rinse and transport air lances previously removed from the tank. The extended accumulation date was January 13, 1993. USDOE-RL subsequently submitted an amended request that identified the actual accumulation ending dates for the three air lances to be January 12, 15, and 16, respectively. Ecology concurred with those amended dates.

The morning of January 12, 1993, Ecology was notified by WEC personnel that freezing conditions may preclude them from rinsing the air lances within the dates of the 30-day extension. On January 13, 1993, Ecology was informed that the first 30-day extension date was missed because of inclement weather. On January 14, 1993, during a field inspection, Ecology inspectors identified that the extension dates were not being met for reasons other than simply weather conditions. For example, only one rigid receiver overpack had been completely fabricated and loaded with an air lance. The other overpacks were not staged in the tank farm.

On January 15, 1993, Ecology staff met with USDOE-RL and WEC staff to discuss the air lance issues. USDOE-RL and WEC agreed that the air lances will be rinsed and transported no later than close of business (1700 hours) Monday, January 25, 1993. It was also agreed in this meeting that the completion date of January 25 could be adjusted if

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John Wagoner
Tom Anderson
Page 2
January 15, 1993

inclement weather conditions or technical problems arise. If an adjustment is required, adequate justification must be provided to Ecology to substantiate the need for any changes.

This letter requires the satisfactory completion of rinsing and transportation of the air lances by the above noted time. Failure to meet this date without adequate justification will result in further enforcement action by Ecology. I would like to acknowledge that the resolution of this concern was a collaborative effort by all three parties.

This compliance action is being taken under the authorities granted to Ecology by RCW 70.105.095 (Hazardous Waste Management) and using the policy guidance of the Department.

Details on the following violations are identified in the enclosed fact sheet:

CLASS I VIOLATIONS

WAC 173-303-200 - Accumulating Dangerous Waste On-Site

- o failure to ship wastes off-site in 120 days or less, after receiving a 30 day extension, to a designated facility per subsection (1)(a)

WAC 173-303-650 - Use and Management of Containers

- o failure to place and store dangerous waste in containers in good condition per subsection (2)

In order to correct the identified violations of WAC 173-303, please complete the following item within the time frame specified. Please be advised that failure to correct this non-compliant item may result in the issuance of an administrative order and/or penalty under RCW 70.105.095 (Hazardous Waste Management).

1. Before to January 25, 1993 at 1700 hours WAC shall rinse and then transfer to the Central Waste Complex, the three (3) air lances being stored in the ST Tank Farm. Ecology must be notified immediately of any technical or adverse weather conditions to determine whether an extension is justified.

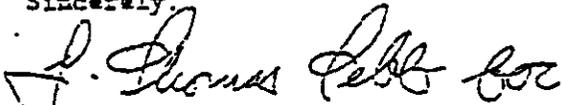
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John Wagoner
Tom Anderson
Page 3
January 15, 1993

Please coordinate any questions or necessary clarification concerning this compliance letter or the enclosed "Certificate of Completion" with Steve Moore or Casey Rind (736-3023 or 736-3022 respectively) of my staff. Please complete and submit the enclosed Certificate of Completion or provide a written report, including receipt of the air licenses by the Central Waste Complex, to Steve Moore by February 1, 1993.

Sincerely,



David Nylander, Kennwick Manager
Nuclear and Mixed Waste Management Program
Washington State Department of Ecology

DN:mf

Enclosures:

1. Certificate of Completion
2. Fact sheet

cc: Mr. Roger Stanley, Program Manager
Nuclear and Mixed Waste Management Program
Washington State Department of Ecology

Mr. Dave Jansen, Hanford Project Manager
Nuclear and Mixed Waste Management Program
Washington State Department of Ecology

Mr. G. Thomas Tebb, RCRA Unit Supervisor
Nuclear and Mixed Waste Management Program
Washington State Department of Ecology

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101 SY Air Lance Inspection Fact Sheet

Owner U. S. Department of Energy (USDOE-RL)
Richland Operations Office
P.O. Box 550
Richland, WA 99352

Operator Westinghouse Hanford Company (WHC)
P.O. Box 1970
Richland, WA 99352

Facility/Location SY Tank Farm, 203 West Area - Hanford Federal
Reservation

Contact Alex Teimouri, USDOE-RL (509) 376-6222
Matthew La Barge, WHC (509) 376-0842

Activity Rinsing, Transportation, and Storage of 101 SY Air Lances

Findings

Facility inspection and review of documentation by Ecology revealed the following findings:

Finding #1 EXCEEDING NINETY DAY STORAGE LIMIT

WAC 173-303-200 Accumulating dangerous waste on-site. (1) A generator . . . may accumulate dangerous waste on-site without a permit for ninety days or less after the date of generation, provided that: (a) All such waste is shipped off-site to a designated facility or placed in an on-site facility which is permitted by the department . . . in ninety days or less. The department may, on a case-by-case basis, grant a maximum thirty day extension to this ninety day period if dangerous wastes must remain on-site due to unforeseen, temporary and uncontrollable circumstances. A generator who accumulates dangerous waste for more than ninety days is an operator of a storage facility and is subject to the facility requirements of this chapter and the permit requirements of this chapter as a storage facility unless he has been granted an extension to the ninety day period allowed pursuant to this subsection; (b) The waste is placed in containers and the generator complies with WAC 173-303-630 (2), (3), (4), (5), (6), (8), and (9) . . . For container accumulation (including satellite areas as described in subsection (2)(c) of this section), the department may require that the accumulation area include secondary containment in accordance with WAC 173-303-630(7), if the department determines that there is a potential threat to public health or the environment due to the nature of the wastes being accumulated, or due to a history of spills or releases from accumulated containers. In addition, any new container accumulation areas (but not including new satellite areas, unless required by the department) constructed or installed after September 30, 1986, must

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comply with the provisions of WAC 173-303-630(7); (2) For the purposes of this section, the ninety-day accumulation period begins on the date that: (a) The generator first generates a dangerous waste

- 1) The three air lances were removed from tank 101 SY on September 14, 17, and 18, 1992. The air lances were placed inside rigid receivers as they were withdrawn from the tank. The rinsing procedure for decontaminating the air lances was not followed because high winds delayed immediate removal from the tank after rinsing. The air lances were considered radioactive mixed waste by WAC and USDOE-RL because the rinsing procedure was unsuccessful. The rigid receivers containing the air lances were placed on supports in a fenced off area of SY tank farm without secondary containment.
- 2) On December 10, 1992 WRC and USDOE-RL proposed a rinsing procedure to reduce the high radiation levels of the air lances to be performed before transferring the air lances to the Central Waste Complex.
- 3) On December 14, 1992 USDOE-RL requested a thirty-day extension to the ninety-day accumulation period for the air lances to accommodate fabrication of the rinsing and storage containers. Ecology granted the extension and the final extension dates were later amended to be January 12, 15, and 18, 1993 to account for when each air lance was removed. The first accumulation date was exceeded, and USDOE-RL and WRC informed Ecology there was no possibility of meeting the final two accumulation dates on January 15, 1993.

Finding #2 IMPROPER STORAGE OF HAZARDOUS WASTE

WAC 173-303-200 Accumulating dangerous waste on-site. (1) A generator, not to include transporters as referenced in WAC 173-303-240(3), may accumulate dangerous waste on-site without a permit for ninety days or less after the date of generation, provided that: (a) All such waste is shipped off-site to a designated facility or placed in an on-site facility which is permitted by the department . . . in ninety days or less; (b) The waste is placed in containers and the generator complies with WAC 173-303-630 (2), (3), (4), (5), (8), and (9), or the waste is placed in tanks and the generator complies with WAC 173-303-640 (2) through (10) . . . (c) The date upon which each period of accumulation begins is marked and clearly visible for inspection on each container; (d) While being accumulated on site, each container and tank is labeled or marked clearly . . . (e) The generator complies with the requirements for facility operators contained in WAC 173-303-330 through 173-303-360 . . .

WAC 173-303-630 Use and management of containers. (1) Applicability.

5/11/93 10:00 AM

The regulations in this section apply to owners and operators of all dangerous waste facilities that store containers of dangerous waste.

(2) Condition of containers. If a container holding dangerous waste is not in good condition (e.g., severe rusting, apparent structural defects) or if it begins to leak, the owner or operator must transfer the dangerous waste from the container to a container that is in good condition or manage the waste in some other way that complies with the requirements of chapter 173-303 WAC. In addition, the owner or operator must address leaks and spills in accordance with the applicable provisions of WAC 173-303-145 and 173-303-360. . .

Ecology's inspection of waste storage areas, record reviews, and personnel interviews revealed the following conditions and deficiencies in waste storage facility construction and container condition:

- 1) The high radiation area/ninety day accumulation area where the rigid receivers were stored is a gravel covered portion of the ST tank farm, and does not have any provisions for secondary containment of released materials.
- 2) On September 28, 1992, radioactive contamination was discovered on the soil under one of the rigid receivers. The contamination was caused by leakage of liquid tank waste from the rigid receiver. The release was surveyed and covered to prevent the spread of contamination, but has not been remediated as of January 15, 1993.
- 3) After discovering the release on September 28, 1992, some of the joints on the rigid receivers were covered with metal tape and plastic. On November 6, 1992, Ecology notified WEC and USDOE-RL that the receivers did not provide satisfactory storage.
- 4) WEC has designed rinsing and storage containers for the air lances and is prepared to perform the first rinsing evolution as of January 15, 1993.

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APPENDIX C-1A

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RESPONSE TO NOTICE OF NONCOMPLIANCE RINSING AND STORAGE OF 101-SY AIR LANCES

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Department of Energy

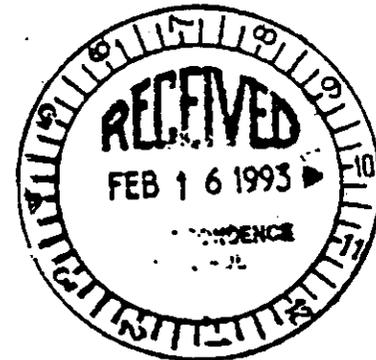
Richland Field Office

P.O. Box 550

Richland, Washington 99352

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FEB 08 1993



93-RPA-129

Mr. David C. Nylander
State of Washington
Department of Ecology
7601 West Clearwater, Suite 102
Kennewick, Washington 99336

Dear Mr. Nylander:

RINSING AND STORAGE OF 101-SY AIR LANCES

As requested in your letter to the U.S. Department of Energy, Richland Field Office (RL) and Westinghouse Hanford Company, same subject, dated January 15, 1993, the following information is provided. All three air lances were rinsed, overpacked, and transported to the Central Waste Complex on January 24, 1993. Upon completion of the action, your staff was verbally informed.

RL appreciates the cooperation provided by the State of Washington Department of Ecology in bringing about a successful resolution of this issue. RL looks forward to a continued cooperation between the two agencies towards mutual progress on environmental restoration activities at the Hanford Site.

If you have any questions, please call me or Mr. Alex Teimouri of my staff on 376-6222.

Sincerely,

James D. Bauer
James D. Bauer, Program Manager
Office of Environmental Assurance,
Permits, and Policy

EAP:AET

cc: D. B. Jansen, Ecology
B. G. Erlandson, WHC
G. W. Jackson, WHC

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DST System — Multi-Function Waste Tank Facility
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APPENDIX C-2

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NOTICE OF VIOLATION 100-K EAST FUEL STORAGE BASIN — FEBRUARY 1993

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JUSTINE M. GEBBIE
Secretary



AIR 93-110kbasin

STATE OF WASHINGTON
DEPARTMENT OF HEALTH
DIVISION OF RADIATION PROTECTION
Airdustrial Center, Bldg. 5 • P.O. Box 47827 • Olympia, Washington 98504-7827

NOTICE OF VIOLATION

February 2, 1993

Mr. John Hunter, Assistant Manager
Office of Assistant Manager
for Operations
U. S. Department of Energy
Richland Field Office
P O Box 550
Richland, Washington 99352

Dear Mr. Hunter:

It has come to our attention that several activities have been under way in the 100-KE Fuel Storage basin that are not in compliance with Washington Administrative Code (WAC) 246-247, Radioactive Air Emissions Regulations. This letter, therefore, constitutes a Notice of Violation (NOV) related to those activities.

WAC 246-247-070 states that "Construction shall not commence on any new source that is required to register... until a Notice of Construction has been approved...." Construction is further defined as follows: "Addition to, or enlargement, modification, replacement, alteration of any process or source... will require the proposed project to utilize Best Available Radionuclide Control Technology (BARCT)." BARCT requires approval by the Department of Health.

The following violations are noted:

1. Sludge work, including the removal and placement into canisters, has taken place, after the Department of Health (DOH) made it clear to Westinghouse (WHC) and the Department of Energy (USDOE) Regulatory Permitting that any sludge work is considered a modification, and requires a Notice of Construction (NOC). (Attempted placement in canisters was confirmed by the K-basin Plant Manager on 1/28/93). The Department has not received a NOC, nor given a BARCT approval. The moving of sludge significantly increases the "potential-to-emit" of radionuclides to the air.

Mr. John Hunter
February 2, 1993
Page 2

2. Actual construction or modification work was initiated without approval, and without a completed and approved BARCT. A letter dated January 26, 1993, from Ron Bliss to John Hunter, states: "Actual encapsulation equipment installation in the 105-KE Basin discharge chutes has commenced." Installation of this equipment represents a major part of the modification that requires DOH approval. This violation was discovered during a visit by two DOH inspectors on January 28, 1993, and confirmed in the Bliss-Hunter letter dated January 26, 1993.

The Department of Energy is, therefore, instructed to cease all operations associated with these activities until DOH reviews and approves the NOC and BARCT reports.

The Department of Energy has taken the position that DOH was informed of the sludge encapsulation activity and has provided a timeline of events attempting to document that foreknowledge. That timeline only included USDOE and WHC Operation's activities, and did not include Westinghouse or USDOE Permitting activities, where DOH specifically required inclusion of sludge encapsulation work in the application. None of the events cited in the timeline gave DOH any indication that sludge encapsulation would be under way prior to the approval of the application. The permitting organizations in USDOE and Westinghouse can, however, verify that DOH clearly stated the requirements. These two organizations represent an agreed upon conduit for DOH communications.

Specific responses related to the timeline follow:

- > DOH recognizes that sludge encapsulation was mentioned in the 7/23/92 meeting. However, DOH rejected the entire concept in the meeting and required a "full" explanation of all activities and a complete determination of the source terms in a letter dated 7/27/92. DOH has yet to receive the "full" explanation, and was informed that the NOC would explain the upcoming activities, indicating that any activity associated with the source term would not occur until DOH granted approval.
- > Several visits to K-Basins are cited with the "Note" that DOH considered them "productive and cooperative". That is true; however, DOH staff never received information that sludge re-encapsulation would occur outside of the NOC application. USDOE admits that in those visits, they do "not specifically address pre-encapsulation activities."

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Mr. John Hunter
 February 2, 1993
 Page 3

- In the October 1992 surveillance, DOH stated that water treatment is considered adequate for current operations. Those operations did not include movement of sludge. If they had, DOH's level of concern over the Reasonably Achievable Control Technology standard (RACT) would have been considerably greater.
- In the 10/9/93 Regulator's meeting, there was a discussion of K-Basin leak surveillance, and a statement that encapsulation could begin as soon as January 1993. The statement is irrelevant since the Department of Health has not received an application. USDOE permitting was informed, however, that a January 1993 start date would be impossible. The presentation given to Regulators included a slide on "operational activities." Sludge removal was not among the activities listed.
- In a presentation given to DOH on 1/20/93, two topics were on USDOE's agenda. The first, the follow-up to the surveillance, was discussed. The second, involving the Notice of Construction, was tabled by DOH since it would be counter productive to discuss USDOE's conclusions before DOH received the application. There was no discussion of the NOC and our copies were discarded after the meeting.
- The last paragraph of the provided timeline includes a statement that, whenever DOH was in K-Basin, the "pre-encapsulation activity equipment was always evident in the basin." This implies that it was the Department's responsibility to discover the equipment, since it was never described to DOH until 1/28/93, when a DOH inspector asked specifically about it.

As stated previously, an extremely important part of the timeline is missing. The DOH, at USDOE's instruction, channels all correspondence, questions and concerns through specific groups in USDOE and Westinghouse; in this case, the Permitting groups. All such communications were left out of the provided timeline. Those organizations, however, can verify that DOH made it very clear what was required in the application and what constitutes commencement of construction or modification.

It is essential to maintain consistency in communication. It is also important that the permitting organizations in USDOE and Westinghouse are not blamed for these violations. The problems have originated on the operations side of both organizations.

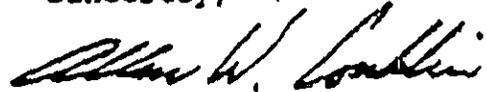
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Mr. John Hunter
February 2, 1993
Page 4

The DOH remains committed to this important project. In spite of these violations, we will attempt to expedite the review of the NOC and BARCT application.

The Department of Energy must provide a written response verifying that activities related to these violations have been stopped within one week of receiving this NOV. Please route any questions through Jim Bauer's organization.

Sincerely,



Allen W. Conklin, Head,
Air Emissions and Defense Waste
Division of Radiation Protection

AWC/jr

cc: T. R. Strong
Eric Slagle
Kristine Gebbie
Dan Silver
Dave Nylander, WDOE
Dave Jansen, WDOE
Rick Poston, EPA
Paul Day, EPA
Ralph Patt, ODOE
Jim Bauer, USDOE

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APPENDIX C-2A

RESPONSE TO NOTICE OF VIOLATION 100-K EAST FUEL STORAGE BASIN

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Department of Energy

Richland Field Office

P.O. Box 550

Richland, Washington 99352

FEB 10 1993

Mr. Allen W. Conklin, Head
Air Emissions and Defense Waste
Division of Radiation Protection
State of Washington
Department of Health
P. O. Box 47827
Olympia, Washington 98504-7827

Dear Mr. Conklin:

RESPONSE TO THE STATE OF WASHINGTON, DEPARTMENT OF HEALTH NOTICE OF VIOLATION FOR ACTIVITIES IN THE 105-KE FUEL STORAGE BASIN

This letter is in response to the Notice of Violation (NOV) that was issued February 2, 1993, regarding recent activities at the 105-KE Fuel Storage Basin. The specific activities cited were for sludge movement work, including removal and placement of some sludge into canisters, and for the emplacement of equipment in the 105-KE discharge pickup chute area of the basin. The State of Washington, Department of Health (WDOH) Notice of Violation requested a written response verifying that these activities have ceased. The purpose of this letter is to confirm per your direction that the work of concern has been placed on hold. While not required by the NOV, we will also be providing additional detailed information relating to pre-encapsulation efforts.

On January 28, 1993, Westinghouse Hanford Company (WHC) management directed that all activities cited by WDOH in the Notice of Violation were to be suspended immediately. The 105-KE Shift Manager's log entry for 0945, January 28, 1993, indicates a verbal notice was received from WHC management interrupting all underwater preparation work. Additionally, an Unusual Occurrence Report dated January 28, 1993, at 1414 hours was issued verifying the 105-KE Fuel Storage Basin preparation work had ceased. This work hold will remain in effect until appropriate guidelines for restart are agreed to with your agency. The U. S. Department of Energy, USDOE, also acknowledged the hold on the work on January 28, 1993, directed that no underwater pre-encapsulation activities be pursued until resolution of the concerns with the WDOH are reached (enclosure).

The USDOE, Richland Field Office (RL) continues to believe this project is important from numerous perspectives, including waste reduction, risk reduction, and source term control. RL is encouraged that WDOH remains committed to the fuel encapsulation project. RL suggests a meeting at your earliest convenience to discuss the range of routine activities associated with fuel storage basin operation and maintenance, as well as those that are defined as pre-encapsulation. Obtaining approvals, even phased, to allow resumption of the preparatory work are of primary interest to RL.

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FEB 10 1993

Mr. Allen W. Conklin

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If you have comments or questions regarding this letter, please contact me, or my director of Operations and Transition Division, J. E. Mecca (509) 376-7471, or S. D. Stites (509) 376-8566, of J. D. Bauer's staff, who we acknowledge as our interface for the Basin work with your department.

Sincerely,


J. R. Hunter, Assistant Manager for
Waste Management

OTD:JEM

Enclosure

cc w/encl:

H. L. Debban, WHC
B. G. Erlandson, WHC
G. W. Jackson, WHC
J. E. Lytle, EM-30
L. H. Harmon, EM-32
E. Livingston-Behan, EM-5

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Enclosure



Department of Energy

Richland Field Office

P.O. Box 550

Richland, Washington 99352

JAN 28 1993

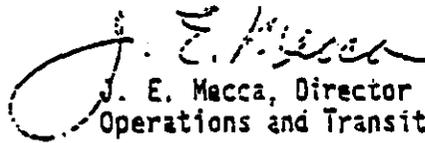
President
Westinghouse Hanford Company
Richland, Washington

Dear Sir:

PRE ENCAPSULATION ACTIVITIES IN 10SKE BASIN

We acknowledge that you have placed under water pre encapsulation activities on hold at 9:45 a.m. on January 28, 1993 due to a concern expressed by Washington State Department of Health (WDOH). We agree with that action. Until WDOH, DOE, and WHC have reached resolution of the issue, you are to continue the hold on these activities.

Sincerely,



J. E. Mecca, Director
Operations and Transition Division

cc: J. D. Wagoner, MGR
J. P. Hamric, DEP
J. R. Hunter, AMW
H. L. Debban, WHC

bcc: OTD Off File
OTD Rdg File
AV Beard, Rdg File
AV Beard, OTD
SS Clark, OTD

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APPENDIX C-3

COMPLIANCE ORDER 93NM-201 AND PENALTY 93NM-202 — MARCH 1993

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STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

Mail Stop PV-11 • Olympia, Washington 98501-8711 • (206) 457-6611

October 28, 1993

Mr. John Wagoner, Manager
U.S. Department of Energy
Richland Operations Office
P.O. Box 550
Richland, WA 99352

Mr. Tom Anderson, President
Westinghouse Hanford Company
P.O. Box 1970
Richland, WA 99352

Dear Messrs. Wagoner and Anderson:

Re: Confirmation of Backlog Waste Generator Designation

On October 28, 1993, the U.S. Department of Energy (DOE) submitted Waste Analysis Plan for Confirmation or Completion of Tank Farm Backlog Waste Designation (WAP), DOE/RL-93-70, Rev. 1, in accordance with the following:

- Washington State Department of Ecology's (Ecology) Order 93NM-201 citing the United States Department of Energy (USDOE) and Westinghouse Hanford Company (WHC) for failure to designate approximately 2,000 containers of solid waste in violation of WAC 173-303-170(1)(a) and the procedures of WAC 173-303-070, dated March 10, 1993.
- Settlement Agreement and Order Thereon, PCHB No. 93-64, dated June 25, 1993.
- Stipulation to Revise Settlement Agreement and Order Thereon, PCHB No. 93-64, dated September 15, 1993.

Messrs. Wagoner and Anderson
October 28, 1993
Page 2 of 2

This WAP was approved today by Ecology. In accordance with our previous agreement, this is to notify you that for the characterization information obtained through implementation of the WAP, Ecology will not require confirmation pursuant to WAC 173-303-300.

If you have any questions regarding this notice, please call Ms. Mogan Lerchen of my staff at (206) 407-7145 or Ms. Tanya Barnett, AAG, at (206) 459-6157.

Sincerely,

Dru Butler

Dru Butler, Program Manager
Nuclear & Mixed Waste Management Program

DB:ML:jw

cc: Tanya Barnett, AAG
Cliff Clark, DOE
Bob Holt, DOE
Ron Izatt, DOE
Jim Rasmussen, DOE
Gene Senat, DOE
Patrick Willison, DOE

Cindy Girres, WHC
George Jackson, WHC
Jack Kasper, WHC
Ron Lerch, WHC
Pat Mackey, WHC
Rick Pierce, WHC
Glen Triner, WHC

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STATE OF WASHINGTON

DEPARTMENT OF ECOLOGY

Attn Stop PV-11 • Olympia, Washington 98504-0211 • (206) 439-6000

October 28, 1993

Mr. John Wagoner, Manager
U.S. Department of Energy
P.O. Box 550
Richland, WA 99352

Mr. Tom Anderson, President
Westinghouse Hanford Company
P.O. Box 1970
Richland, WA 99352

Dear Messrs. Wagoner and Anderson:

Re: Submittal of a Backlog Waste Analysis Plan

We have received your submittal of the Waste Analysis Plan for Confirmation or Completion of Tank Farms Backlog Waste Designation (WAP). DOE/RL-93-70, Rev. 1, submitted in accordance with the following:

- Washington State Department of Ecology's (Ecology) Order 93NM-201 (Order) citing the United States Department of Energy (USDOE) and Westinghouse Hanford Company (WHC) for failure to designate approximately 2,000 containers of solid waste in violation of WAC 173-303-170(1)(a) and the procedures of WAC 173-303-070, dated March 10, 1993.
- Settlement Agreement and Order Thereon (Settlement Agreement), PCHB No. 93-64, dated June 25, 1993.
- Stipulation to Revise Settlement Agreement and Order Thereon (Stipulation), PCHB No. 93-64, dated September 15, 1993.

Messrs. Wagoner and Anderson
October 28, 1993
Page 2 of 2

This is notification that Ecology approves the WAP and considers Item 3 of Order 93NM-201 as amended by the Settlement Agreement and Stipulation satisfied.

If you have any questions, please contact Mr. Dave Nylander (509) 736-3000.

Sincerely,

Dru Butler

Dru Butler, Program Manager
Nuclear & Mixed Waste Management Program

DB:ML:jw

cc: Tanya Barnett, AAG
Cliff Clark, DOE
Bob Holt, DOE
Ron Izatt, DOE
Jim Rasmussen, DOE
Gene Senat, DOE
Patrick Willison, DOE

Cindy Girres, WHC
George Jackson, WHC
Jack Kasper, WHC
Ron Lerch, WHC
Pat Mackey, WHC
Rick Pierce, WHC
Glen Triner, WHC

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STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

7601 W. Clearwater, Suite 102 • Kennewick, Washington 99336 • (509) 546-2990

September 15, 1993

Mr. John Wagoner, Manager
U.S. Department of Energy
Richland Operations Office
P.O. Box 550
Richland, WA 99352

Mr. Tom Anderson, President
Westinghouse Hanford Company
P.O. Box 1970
Richland, WA 99352



Dear Messrs. Wagoner and Anderson:

Re: Submittal of Waste Analysis Plan

On August 30, 1993, the U.S. Department of Energy (DOE) and Westinghouse Hanford Company (WHC) submitted a Waste Analysis Plan (WAP) for review and approval by the Washington State Department of Ecology (Ecology). The WAP was required by Item 3 of Order 93NM-201 dated March 10, 1993, and the revised Settlement Agreement dated June 30, 1993.

Ecology has reviewed the WAP and cannot approve it until a number of problems and/or deficiencies are corrected. A list of the specific concerns are forthcoming.

The purpose of the WAP is to gain sufficient information for final waste designation. Once designation is final, decisions regarding treatment, storage, and disposal can be made.

Listed below are three general areas of concern that make the WAP unacceptable. Once these and the forthcoming specific issues have been resolved, the WAP will be acceptable.

- 1) The WAP must satisfy generator requirements for waste designation as required by WAC 173-303-070 and -170. DOE/WHC contend that sufficient information for designation may exist; however, Ecology cannot consider the waste designated until such evidence can be demonstrated.
- 2) The scope of waste covered by the WAP has not been adequately defined.

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T. M. ANDERSON

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Mr. John Wagoner
Mr. Tom Anderson
September 15, 1993
Page 2

- 3) Criteria to be used while implementing the WAP are, in many cases, undefined, inadequate, or unacceptable. As submitted, the WAP does not clearly define the processes for proper waste designation.

DOE requested that Ecology participate in a Data Quality Objective (DQO) process for development of the WAP. A team comprised of members from DOE, WHC, and Ecology have worked hard over the last few months to reach agreement in development of the document.

I encourage you to review the minutes of these meetings and the information provided by Ecology throughout the DQO process in order to assist in the speedy resolution to the differences written into the WAP, and those agreements reached with Ecology during team negotiations.

Ecology is available to assist DOE and WHC in resolving the concerns in hopes of reaching a satisfactory conclusion of our joint efforts to develop the WAP. Please contact me at (509) 736-3000 or Laura Russell at (509) 736-3024 if we can be of assistance.

Sincerely,

Dave Nylander

Dave Nylander
Kennewick Manager
Nuclear & Mixed Waste Management Program

DN:LR:mf

cc: Cliff Clark, DOE
Patrick Wilson, DOE
Gene Senat, DOE
Jim Rasmussen, DOE
Ron Izatt, DOE
Pat Mackey, WHC
Rick Pierce, WHC
Jack Kaspar, WHC
George Jackson, WHC
Glen Trainer, WHC
Cindy Girres, WHC

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STATE OF WASHINGTON

DEPARTMENT OF ECOLOGY

7601 W. Clearwater, Suite 102 • Kennewick, Washington 99336 • (509) 546-2990

August 9, 1993

Mr. Glen Triner
Westinghouse Hanford Company
P.O. Box 1970
Richland, WA 99352

Ms. Cindy Girres
Westinghouse Hanford Company
P.O. Box 1970
Richland, WA 99352

Dear Glen and Cindy:

Re: Waste Analysis Plan Comments

During our meeting on Friday afternoon, July 30, 1993, we discussed the Washington State Department of Ecology's (Ecology) comments on the draft Waste Analysis Plan (WAP) for Confirmation of Tank Farm Backlog Waste Designation (WHC-SD-WM-EV-XXX, Revision 0) which the Department of Energy (DOE) and Westinghouse Hanford Company (WHC) submitted to Ecology on July 9, 1993. We also discussed a revised version of this document (WHC-SD-WM-EV-XXX, Revision A) given to Ecology for review on the morning of July 30, 1993. At our meeting, I provided written comments on the July 9, 1993, draft, and verbal comments on the July 30, 1993, draft.

I received another revised version of Revision A on August 6, 1993, and reviewed Sections 1.0 through 3.1. Ms. Megan Lerchen is conducting a technical review of Sections 4.0 through 7.0. I am concerned that many of Ecology's previous comments and concerns were not reflected in the first three sections of the latest revision. Also, I am concerned about new items that were added to the WAP.

- o All references to the backlog procedure, WHC-IP-0871 should include "Rev. 1." I realize that waste not meeting the definition of backlog waste as defined in WHC-IP-0871, Rev. 1., has been incorporated into the backlog waste program. Instruction on management of these additional wastes will be provided under separate cover.
- o Section 1.0. states in part, "... (WHC) Tank Farms participated in this program until May of 1993 when the program concluded ..." The backlog waste program, as defined in WHC-IP-0871, Rev. 1., ended December 31, 1992. Either correct

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August 9, 1993
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the conclusion date from May 1993 to December 31, 1992, or omit the conclusion date from the WAP.

- o All references to WAC 173-303-300 should be removed. Although most citations to WAC 173-303-300 were removed, the document still incorporates much of the language and "spirit" of interim status requirements for waste confirmation. In an effort to remove any ambiguity on this matter, I suggest the following clarification be added to Section 1.1., PURPOSE:

This plan does not address waste confirmation requirements of Chapter 173-303-300 WAC.

- o Section 1.1., paragraph 7, includes a new sentence that states: "This plan will be used in conjunction with other WHC procedures currently written to address certain processes as well as other backlog procedures that will be developed to address pieces of the process." Which WHC procedures will be used to address which processes? Under what conditions will additional backlog procedures be developed? I realize that not every situation to be encountered can be proceduralized; however, criteria for evaluating when and if new procedures are necessary needs to be specified. For example, special case documentation requirements, etc.

- o References to the "Generating Unit" have been changed to "Tank Farms." The scope of the WAP includes Tank Farm waste, as required by the Order. However, because other generators also participated in Backlog Waste Program, references to "generating unit" should remain. In addition, I suggest adding the following sentence to Section 2.1.

The generator is responsible for management of dangerous and/or mixed waste in accordance with WAC 173-303 until the waste is formally accepted by the Central Waste Complex .

- o Section 2.2, first bullet: Add "... for confirmation or completion of *generator* designation, as required by this document."
- o Section 2.2, fourth bullet: Remove reference to WAC 173-303-300. The bullet discusses staging containers. WAC 173-303-300 does not discuss staging containers, rather specifies requirements for interim facility owners or operators to confirm knowledge about a dangerous waste before storing, treating, or disposing of the waste. Again, all references to WAC 173-303-300 must be removed from the WAP. The fourth bullet also discusses "interim staging procedures." Please reference the specific procedures.

Mr. Glen Triner
Ms. Cindy Girres
August 9, 1993
Page 3

- o Section 2.2, sixth bullet: Reference is made to "processing unit", i.e., the facility chosen for repackaging, etc., of the backlog waste. Section 2.5 discusses "Repackaging Unit Responsibilities." The referenced facility name needs to be consistent.
- o Section 3.1. Ecology has repeatedly required the first four sentences of the first paragraph either be corrected or be removed. The backlog shipments were NOT made within existing interim status standards. Waste was NOT designated in accordance with WAC 173-303-070.
- o Section 3.1 (should be 3.2, Waste Management Training). Delete first sentence as additional training IS required by this plan. That is, workshops to present the plan, the methodology, and discuss in detail the various processes embodied by this plan should be considered training. In addition, specific training required to satisfy "current WHC standards" must be identified, i.e., course number, course title, etc.

Ecology has worked diligently with DOE and WHC to clearly communicate our expectations in fulfilling the Order requirements. These expectations are not being adequately reflected in the first three sections of the WAP. The WAP will not be accepted if these shortfalls or deficiencies are not corrected. I want to continue working with DOE and WHC to develop a satisfactory document so that progress in the actual waste designation process can begin. If you have questions or require additional information, please contact me at (509) 736-3024.

Sincerely,



Laura Russell
RCRA Compliance Inspector

LR:sr

cc: Cliff Clark, DOE
Dennis Claussen, DOE
Gene Senat, DOE
Jack Kasper, WHC
Matt LaBarge, WHC
Pat Mackey, WHC
Rick Pierce, WHC

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STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

7601 W. Clearwater, Suite 102 • Kennewick, Washington 99336 • (509) 546-2990

July 30, 1993

Mr. Glen Triner
Westinghouse Hanford Company
P. O. Box 1970
Richland, WA 99352

Ms. Cindy Girres
Westinghouse Hanford Company
P.O. Box 1970
Richland, WA 99352

Dear Glen and Cindy:

Re: Waste Analysis Plan Comments

Attached are Megan Lerchen's comments on the Waste Analysis Plan (WAP) for designating Tank Farm's backlog waste containers. Megan told me she faxed a copy to Cindy on Friday, July 23, 1993. I also provided Glen with a copy earlier this week.

I provided handwritten comments on the July 9, 1993, draft WAP during our July 19, 1993, meeting. The bulk of my comments focused on removing reference to section WAC 173-303-300, as interim status requirements for waste confirmation are not to be addressed in the scope of this WAP. Additionally, I stated that all references to the backlog procedure, WHC-IP-0871, should include Rev.1, as Rev. 1 is the only version of this procedure that the Washington State Department of Ecology (Ecology) recognizes.

I realize you both have worked very hard in developing this plan to meet everyone's requirements and expectations. I appreciate your efforts and your willingness to deal with me in an honest, upfront manner. I will review the latest draft today. Megan will be back from vacation on Monday and will perform her review then. My goal is to wrap up

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Ms. Cindy Girres
July 30, 1993
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comments from my end today, Megan's on Monday or Tuesday, and hopefully be able to give the green light to you early next week so the Department of Energy (DOE)/ Westinghouse Hanford Company (WHC) final approval and signature process can begin.

Sincerely,



Laura Russell
RCRA Compliance Inspector
Nuclear & Mixed Waste Management Program

LR:mf
Attachment

cc: Cliff Clark, DOE
Dennis Claussen, DOE
Gene Senat, DOE
Jack Kasper, WHC
Matt LaBarge, WHC
Pat Mackey, WHC
Rick Pierce, WHC

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**COMMENTS ON THE WASTE ANALYSIS
PLAN FOR TANK FARM BACKLOG
WASTE DESIGNATION**

The plan references the requirements of WAC 173-303-070 and WAC 173-303-300. This plan is required only to meet generator requirements. The correct regulatory citations, as stated in the Pollution Control Hearings Board Settlement Agreement and Order Thereon No. 93-64 (the "Settlement Agreement"), are WAC 173-303-170(1)(a) and WAC 173-303-070. No parts of the plan which are intended to and identified as meeting TSD requirements were reviewed.

Overall, the draft plan does not include enough detail to allow for a detailed review much less implementation. In discussions with the backlog waste analysis plan development team, it seems as though they do have a clear idea of their intent; however, this is not conveyed within the text of the plan. Topics which need to be expanded upon have been discussed in meetings with the development team and include, but are not limited to, those outlined below:

- The plan must clearly state at what points and under what conditions it will be demonstrated that sufficient information exists to adequately characterize each container for designation under WAC 173-303-070.
- The plan must be implementable. This may be achieved by increasing the detail within the plan or by providing specific references to other documents which have been approved for public release.
- There is insufficient quality assurance/quality control (QA/QC). The specific QA/QC activities which will be performed must be described in sufficient detail for implementation.
- In our meeting of June 17, 1993, the question that all parties agreed upon was, "How do we demonstrate that the waste has been properly designated for compliance with the Order?" To be able to address this question, the following DQO should be added to the list in Section 1.2 DATA QUALITY OBJECTIVES, "Confirm or complete designation of the solid waste."
- The process for categorizing the containers by waste types is unclear and can not be implemented. For example, in Section 4.1 WASTE SORTING/CATEGORIZATION, the plan states that a "priority has been established for the waste types." The priority list is not given. Presumably, this prioritization is important in categorizing the waste containers as shown the example.

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- As discussed in our meetings, the document assessment process lacks any clear criteria for implementation. Use of this process is not acceptable without established criteria. Because the document assessment process is not usable, this also leaves the batch confidence approach unusable.
- There are no clear criteria established for when the physical confirmation methods will be applied. In addition, there is no description of how this information will be used in demonstrating adequate characterization of a container pursuant to WAC 173-303-070.
- It is acceptable to test for target analytes for generator confirmation of process knowledge provided there is sufficient information to demonstrate that testing need not be done for other analytes.
- As stated above, it is not clear what the acceptable criteria for demonstration of adequate characterization information is. It would be helpful to expand the number and detail of examples and criteria given in Section 4.4 CONFIRMATION FAILURE.
- Procedures for sampling are not clearly delineated except in the tables. The plan should clearly state or reference sufficient information to implement sampling of the containers for each waste type including any ALARA impacts to procedures.
- Analytical procedures are not clearly delineated except in the tables. The plan should state what tests will be performed on what type of wastes. Criteria must be stated for when ALARA concerns will impact chemical analyses and what departures from established procedures will be made under what conditions.
- Vague references to SW-846 are not acceptable. It is acceptable to refer to either to specific SW-846 methods or to equivalent DOE/WHC methods which have been submitted to Ecology and EPA.
- Procedures and criteria for utilizing the tables and diagrams in the appendices must be provided. Also, how the completed tables and diagrams will be used must be delineated.

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STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

7501 W. Clearwater, Suite 102 • Kennewick, Washington 99336 • (509) 546-2990

May 20, 1993

Mr. James D. Bauer
Department of Energy-Richland Operations
P.O. Box 550
Richland, WA 99352

Mr. R. E. Lerch
Westinghouse Hanford Company
P.O. Box 1970
Richland, WA 99352

Dear Messrs. Bauer and Lerch:

Re: Forty Day Response to Order Number 93NM-201, dated April 21, 1993

This letter acknowledges receipt of forty day response requirements specified in Order Number 93NM-201 as Items 1 through 4. However, the documents provided either do not fully satisfy the intent of the Order or additional information is required. Please provide a written response to the following issues by June 21, 1993.

I am perplexed by the response provided to the items required in the Order. Ecology staff met with DOE and WHC staff on March 15, 1993 and went over item by item in what I believed was a thorough discussion resulting in all parties understanding each requirement. Ecology staff met with DOE and WHC staff in Lacey on May 6, 1993. At this meeting, I was disappointed to learn that DOE and WHC allege that they did not understand the requirements that were covered in the March 15, 1993 meeting.

Item #1: Status - SATISFACTORY RESPONSE TO FORTY DAY
REQUIREMENT - Additional information requested

(DOE Enclosure 1) Paragraph 2 of the "Description of Container Status Data" sheet states, "Some discrepancies have been found between the dose rate reported at the time the container was shipped and the dose rate when the container was received at T Plant. In no case was a container accepted that exceeded 2 millirem/hour."

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R. E. Lerch
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However, the Unknown Tank Farm Waste Output Summary, dated 4/21/93, reports 17 containers with dose rates greater than 2 millirem/hour.

Issue #1: What happened surrounding the reported change in dose rates between shipment from Tank Farms and receipt at T Plant? How has this discrepancy been explained? Are there drums at T Plant that have dose rates in excess of 2 millirem/hour? Please explain.

On the Solid Waste Information and Tracking System report, the field "TSD Accept Dt" is given.

Issue #2: What does "TSD Accept Dt" define? Is it the date the drum was physically received at the Central Waste Complex, or does it represent another date?

Item #2: Status - UNSATISFACTORY RESPONSE TO FORTY DAY REQUIREMENT - Additional information required

(DOE Enclosure 3) Item #2 in the Order requires a report identifying dangerous waste designation practices currently in place for ongoing waste generation at the 200 Area Tank Farms. Item #2 also requires copies of waste designation procedures governing 200 Area tank farm waste generation. The point of Item #2 is to document that generators know how to properly designate their waste.

The following five documents were provided to satisfy the requirements of Item #2. Concerns with these documents are detailed below.

- o TO-100-052, "Segregate, Package, and Inventory Radioactive Waste," does not address dangerous waste designation. Additionally, Section 5.1, "Determine Waste Type and Quantity," refers to Appendix A for segregation criteria; however, Appendix A does not address contaminated soils.
- o TO-100-045, "In-Process Inspection of Active Waste Containers," does not address dangerous waste designation. Additionally, Appendix A does not address contaminated soils. (Note: Segregation criteria differs between TO-100-052 and TO-100-045.)
- o TO-100-055, "Set-Up/Operate Satellite Accumulation Areas," does not address dangerous waste designation.

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- o WHC-SD-WM-CJAPP-016, "Tank Farms Solid LLW and RMW Quality Assurance Program Plan," references WHC-SD-WM-EV-081, "Tank Farms Solid, Low Level and Radioactive Mixed Waste Certification Plan," as well as

WIIC-EP-0063, "Hanford Site Solid Waste Acceptance Criteria." WHC-EP-0063 does not cover specific waste designation procedures governing 200 Area tank farm waste generation.

- o WHC-SD-WM-EV-081, Rev 1., "Tank Farms Solid, Low Level and Radioactive Mixed Waste Certification Plan," does address waste generation and characterization procedures governing 200 Area tank farm waste. However, the following additional information is required.

Issue #3: Section 3.1.2.7 CHARACTERIZATION/Sampling states, "Where process knowledge is not valid for characterization, then sampling and testing will be used for characterization. . . . Sampling will be done using approved procedures and sampling plans. . . ." Please provide copies of these "approved procedures and sampling plans."

Issue #4: Section 3.3, Waste Characterized by Process Knowledge, first bullet, states, "Waste tank sludge/core sample and liquid analytical data from the single shell and double shell characterization will be used as documented process knowledge for waste directly attributed to sampling activities, tank maintenance, or other activities where waste is directed associated with tank contents." Please provide a status report identifying which tanks have been characterized based on waste tank sludge/core sampling and liquid analytical data. What chemical analyses have been completed? Are the analyses complete? What analyses results are pending? Has the data been validated?

Issue #5: Section 3.4, Waste Characterized by Sampling and Analysis, states, "This waste stream encompasses waste that cannot be fully characterized by documented process knowledge." It further states, "Chemical properties will be determined by sampling and laboratory analysis when needed." Who determines when and if process knowledge is sufficient? When does this happen in the

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overall waste management process? When the decision is made to sample, what analytical methods are used? Is Appendix J in WHC-EP-0063, Rev. 3. used?

Issue #6: Section 3.1.2.1, Training, references a "training plan specific to radioactive solid waste management." Please provide a copy of this training plan.

Issue #7: Has Tank Farms received approval from Solid Waste Disposal as a low-level waste generator? Or is Tank Farms still in an "Approval Pending" status? Please provide current status of generator approval.

Item #3: Status - UNSATISFACTORY RESPONSE TO FORTY DAY REQUIREMENT - Additional information required

Ecology recognizes that there is an interim stay in effect to the extent that Item #3 requires the submission of plans to characterize all 2000+ containers of waste within one year. Nevertheless, the following are deficiencies in the forty day response.

(DOE Enclosure 4) Item #3 in the Order requires a plan for review and approval detailing the established criteria and procedures for waste inspection, segregation, sampling, designation, and repackaging of all containers reported in Item #1. Item #3 also requires the report to include sampling plan criteria for different contaminated media, i.e., soils, compactable waste, high efficiency particular air (HEPA) filters, etc.

SW-PE-WP-042, "Receive, Segregate & Dispose of 'Unknown' Backlog Waste Containers in the 221-T Tunnel," does not provide adequate criteria and procedures for sampling and designation, nor does it provide specific sampling plan criteria for soils or HEPA filters. SW-PE-WP-042 charges the Solid Waste Assessment Team (SWAT) with performing field waste assessments and designation as required on site, and states that SWAT activities will be performed in accordance with the SWAT Desk Instruction for field waste assessment, Attachment E of the procedure (page 1). However, Attachment E was not provided. SW-PE-WP-042 also states that low level waste material will be segregated and inventoried into specific drums as noted in Figure 1 (page 4). However, Figure 1 was not provided.

Issue #8: Please provide SW-PE-WP-042, Attachment E, and Figure 1.

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James D. Bauer
R. E. Lerch
May 20, 1993
Page 5

WHC-IP-0871, Rev. 1, "Receipt and Interim Staging of Backlog Waste," does not provide adequate criteria and procedures for sampling and designation, nor does it provide specific sampling plan criteria for soils or HEPA filters. WHC-IP-0871, Rev. 1, references the most recent version of WHC-EP-0063 (i.e., Rev. 3.). However, WHC-EP-0063 does not provide adequate criteria and procedures for specific sampling and designation projects.

The Order calls for a plan which includes established criteria and procedures for waste sampling and designation, specifically for soils and HEPA filters. These were not provided. Your April 21, 1993 letter, page 2, states, "Plans are underway to characterize and/or repackage backlog waste as necessary before treatment and/or disposal being initiated per the Hanford Solid Waste Acceptance Criteria (EP-0063)."

Issue #9: Please provide sampling plans and procedures that address the deficiencies noted above.

Item #4: Status - UNSATISFACTORY RESPONSE TO FORTY DAY REQUIREMENT - Additional information required

Ecology recognizes that there is an interim stay in effect to the extent that Item #4 requires the submission of plans to characterize all 2000+ containers of waste within one year. Nevertheless, the following are deficiencies in the forty day response.

(DOE Enclosure 4) Item #4 in the Order requires a plan for review and approval documenting the readiness of an appropriate area for waste inspection, segregation, sampling, and repackaging. SW-PE-WP-0042 and WHC-IP-0871 were provided in response to this requirement. Discussions between Ecology and DOE/WHC personnel were based on "unknowns" being processed through T Plant and the remaining backlog containers, already in interim acceptance at the Central Waste Complex (CWC), processed for final acceptance also at CWC. However, your April 21, 1993 letter, page 3, states, "T Plant is also assumed to be the location for additional characterization and repackaging of "Backlog Waste," as part of the second stage of that program."

Issue #10: Where are the 2000+ backlog waste containers from tank farms going to be processed for final acceptance? Is the plan to transport those already in CWC to T Plant? If so, explain why work required under the Order cannot be performed in CWC or some other facility that already has interim status. DOE/WHC's decision to change repackaging facilities from CWC to T Plant, a

James D. Bauer
R. E. Lerch
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facility that currently does not have interim status, will not constitute acceptable justification for violating the Order's established timelines for designation if for some unforeseen reason there are delays in T Plant's receipt of interim status. Please discuss.

If I can be of further assistance to you or your staff members in clarifying the intent or expectations of the Order or if you have additional questions or concerns, please contact me at (509) 736-3024.

Sincerely,

Laura Russell

Laura Russell
RCRA Compliance Inspector
Nuclear & Mixed Waste Management Program

LR:mf

cc: Cliff Clark, DOE
Gene Senat, DOE
John Wagoner, DOE
Patrick Willison, DOE
Tom Anderson, WHC
Jack Kasper, WHC
Patrick Mackey, WHC
Rick Pierce, WHC

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STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

Mail Stop PV-11 • Olympia Washington 98514-1171 • (206) 354-4111

March 10, 1993

CERTIFIED MAIL



Mr. John Wagoner, Manager
U.S. Department of Energy-Richland Operations
P.O. Box 550
Richland, WA 99352

Mr. Tom Anderson, President
Westinghouse Hanford Company
P.O. Box 1970 MSIN: B3-01
Richland, WA 99352

Dear Messrs. Wagoner and Anderson:

Enclosed is Order No. 93NM-201. It is issued to both the U.S. Department of Energy-Richland Operations and to Westinghouse Hanford Company, and both parties are responsible for complying with its terms. Because the matters addressed in the Order are not part of the work covered by the Hanford Federal Facility Agreement and Consent Order, Ecology is exercising its authority to act outside that Agreement with respect to the Department of Energy-Richland Operations.

All correspondence relating to this document should be directed to Laura Russell, RCRA Compliance Inspector, Washington State Department of Ecology, 7601 W. Clearwater, Suite 102, Kennewick, WA 99336. A copy should also be sent to the Enforcement Officer of the Department of Ecology, P.O. Box 47600, Olympia, WA 98504-7600. This Order may be reviewed or appealed as set forth under the provisions contained within the order document.

If you have any questions concerning the content of the document, please call G Thomas Tebb, RCRA Unit Supervisor, at (509) 736-3020 or Roger Stanley, Program Manager, at (206) 438-7020.

Sincerely,

Roger Stanley
Program Manager
Nuclear and Mixed Waste Management

RS:lm
Enclosure

RECEIVED

MAR 12 1993

T. M. ANDERSON

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DEPARTMENT OF ECOLOGY

IN THE MATTER OF COMPLIANCE BY)
U S. Department of Energy -)
Richland Operations and the)
Westinghouse Hanford Company)
with Chapter 70.105 RCW and the)
Rules and Regulations of the)
Department of Ecology)

ORDER
No. 93NM-201

TO: U.S. Department of Energy-Richland Operations
P.O. Box 550
Richland, WA 99352

AND TO: Westinghouse Hanford Company
P.O. Box 1970
Richland, WA 99352

Chapter 173-303 Washington Administrative Code (WAC), entitled "Dangerous Waste Regulations", designates those solid wastes which are dangerous or extremely hazardous to the public health and environment, and provides for surveillance and monitoring of dangerous wastes until they are detoxified, reclaimed, neutralized, or disposed of safely. The wastes generated from maintenance-type activities at the 200 Area tank farm facilities located on the Hanford Site in Richland, Washington, are solid waste (173-303-016(4)) and therefore subject to designation and appropriate management under Chapter 173-303 WAC.

The United States Department of Energy-Richland Operations (herein referred to as DOE-RL) is the owner of the Hanford Site in Richland, WA, including the 200 Area tank farm facilities located thereon. Westinghouse Hanford Company (herein referred to as WHC) is the operator of the 200 Area tank farm facilities located on the Hanford Site in Richland, WA. WHC manages, operates, and maintains these facilities pursuant to a contract with DOE-RL. DOE-RL and WHC are persons whose acts or processes produce dangerous waste or whose acts first cause a dangerous waste to become subject to regulation (WAC 173-303-040).

On January 23, 1992, DOE-RL received notification through WHC's Occurrence Reporting procedure that waste management problems existed in the 200 Area tank farms. As required through DOE Orders, on January 24, 1992, DOE-RL issued Unusual Occurrence (UO) Report #RL--WHC-TANKFARM-1992-0007, citing deficiencies in solid waste environmental compliance issues. The UO cited deficiencies with "both administrative controls and issues pertaining to container packaging, inventories, and storage."

Facility inspection by the Washington State Department of Ecology (Ecology) on August 31, 1992, record review of documents including WHC audits and surveillances from 1989 through 1992, and Unusual Occurrence Report #RL--WHC-TANKFARM-1992-0007, revealed that DOE-RL and WHC are not in compliance with the Dangerous Waste Regulations, Chapter 173-303 WAC, as follows:

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ORDER No. 93NM-201
March 10, 1993
Page 2

DOE-RL and WHC have failed to designate approximately 2,000 containers of solid waste in violation of WAC 173-303-170(1)(a) and the procedures of WAC 173-303-070.

The containers consist of 55-gallon steel drums and wooden burial boxes.

Revised Code of Washington (RCW) 70.105.095 reads in part: "Whenever on the basis of any information the Department determines that a person has violated or is about to violate any provision of this chapter, the department may issue an order requiring compliance either immediately or within a specified period of time."

In view of the foregoing and in accordance with RCW 70.105.095:

IT IS ORDERED THAT the United States Department of Energy-Richland Operations and Westinghouse Hanford Company designate the solid waste within the 200 Area tank farm waste containers identified in UO Report #RL-WHC-TANKFARM-1992-0007 within one year of receipt of this Order. The following designation and reporting requirements are in accordance with WAC 173-303-070 and WAC 173-303-220, respectively.

Interim steps toward compliance are modeled, in part, after two corrective action plans that WHC has presented to Ecology for achieving compliance at the 200 Area tank farms: a Corrective Action Schedule (presented August 19, 1992) and a Strategy for Management of Backlog Waste (presented November 6, 1992).

1. Within forty (40) calendar days of receipt of this Order, DOE-RL and WHC shall provide Ecology with a report identifying the current status for each waste container identified in this Order. Individual container status shall be documented by completing WHC's Backlog Waste Information Sheets or equivalent. Copies of each individual container Backlog Waste Information Sheet or equivalent shall be provided.
2. Within forty (40) calendar days of receipt of this Order, DOE-RL and WHC shall provide Ecology with a report identifying dangerous waste designation practices currently in place for ongoing waste generation within the 200 Area tank farms. Copies of waste designation procedure(s) governing 200 Area tank farm waste generation shall be provided with the report.
3. Within forty (40) calendar days of receipt of this Order, DOE-RL and WHC shall provide Ecology with a plan for review and approval detailing the established criteria and procedures for waste inspection, segregation, sampling, designation, and repackaging of all containers reported in item #1. The report shall include sampling plan criteria for different contaminated media, i.e., soils, compactable waste, high efficiency particular air (HEPA) filters, etc., and a schedule for completing the work within the time allowed under this Order.

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4. Within forty (40) calendar days of receipt of this Order, DOE-RL and WHC shall provide Ecology with a plan for review and approval documenting the readiness of an appropriate area for waste inspection, segregation, sampling, and repackaging of all waste containers identified in item #1.
5. Immediately upon approval from Ecology for items #3 and #4 of this Order, DOE-RL and WHC shall implement the respective plan(s).
6. Within sixty (60) calendar days of receipt of this Order, DOE-RL and WHC shall ship all containers of dangerous waste and suspected dangerous waste identified in item #1 to an on-site facility which meets interim status facility standards under WAC 173-303-400.
7. Within ninety (90) calendar days of receipt of this Order, DOE-RL and WHC shall provide Ecology with a report documenting progress in waste inspection, segregation, sampling, designation, and repackaging of each waste container identified in item #1.
8. Within one (1) calendar year of receipt of this Order, DOE-RL and WHC shall complete waste designations for all containers identified in item #1.
9. Within one (1) calendar year of receipt of this Order, DOE-RL and WHC shall submit to Ecology a report detailing the final designation and selected waste management option for all containers identified in item #1. The report shall include, for each container, a description of the waste (e.g., common name/dangerous constituent(s), dangerous waste number(s), physical form), the waste classification (e.g., low-level waste, dangerous waste, mixed waste), copies of all field/laboratory analyses, and the treatment or disposal date and location (past or pending).

Compliance with this Order does not relieve DOE-RL or WHC of responsibility for compliance with any applicable federal, state, or local laws or ordinances.

Any person who fails to take corrective action as specified in a compliance order shall be liable for a civil penalty of not more than ten thousand dollars per violation, for each day of continued noncompliance. Noncompliance with any section or subsection of Chapter 173-303 WAC constitutes a separate violation. In addition, the Department may suspend or revoke any permits and/or certificates issued under the provisions of this Chapter to a person who fails to comply with an order directed against him or her.

This Order is issued under the provisions of Chapter 70.105 RCW. Any person aggrieved by this Order may obtain review thereof by application, within thirty (30) days of receipt of this Order, to the Washington Pollution Control Hearings Board, P.O. Box 40903, Olympia, WA 98504-0903. Concurrently, a copy of the application must be sent to Laura Russell, RCRA Compliance Inspector, Washington State Department of Ecology, 7601 W. Clearwater, Suite 102.

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ORDER No. 93NM-201
March 10, 1993
Page 4

Kennelick, WA 99336 and to the Enforcement Officer of the Department of Ecology, P.O. Box 47600, Olympia, WA 98504-7600. The procedures for appealing orders and/or penalties issued by the Department of Ecology are set forth in Chapter 43.21B RCW and the regulations adopted thereunder.

DATED this _____ day of _____, 19____, at Olympia, Washington.

Roger Stanley, Program Manager
Nuclear and Mixed Waste Management Program
Department of Ecology

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STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

Mail Stop PV-11 • Olympia, Washington 98504-8711 • (206) 459-6000

March 10, 1993

CERTIFIED MAIL

Mr. John Wagoner, Manager
U.S. Department of Energy-Richland Operations
P.O. Box 550
Richland, WA 99352

Mr. Tom Anderson, President
Westinghouse Hanford Company
P.O. Box 1970 MSIN: B3-01
Richland, WA 99352

Dear Messrs. Wagoner and Anderson:

Enclosed is Order No. 93NM-201. It is issued to both the U.S. Department of Energy-Richland Operations and to Westinghouse Hanford Company, and both parties are responsible for complying with its terms. Because the matters addressed in the Order are not part of the work covered by the Hanford Federal Facility Agreement and Consent Order, Ecology is exercising its authority to act outside that Agreement with respect to the Department of Energy-Richland Operations.

All correspondence relating to this document should be directed to Laura Fussell, RCRA Compliance Inspector, Washington State Department of Ecology, 7601 W. Clearwater, Suite 102, Kennewick, WA 99336. A copy should also be sent to the Enforcement Officer of the Department of Ecology, P.O. Box 47600, Olympia, WA 98504-7600. This Order may be reviewed or appealed as set forth under the provisions contained within the order document.

If you have any questions concerning the content of the document, please call G. Thomas Tebb, RCRA Unit Supervisor, at (509) 736-3020 or Roger Stanley, Program Manager, at (206) 438-7020.

Sincerely,

Roger Stanley
Program Manager
Nuclear and Mixed Waste Management

RS:ln
Enclosure

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DEPARTMENT OF ECOLOGY

IN THE MATTER OF COMPLIANCE BY)
U.S. Department of Energy -)
Richland Operations and the)
Westinghouse Hanford Company)
with Chapter 70.105 RCW and the)
Rules and Regulations of the)
Department of Ecology)

ORDER
No. 93NM-201

TO: U.S. Department of Energy-Richland Operations
P.O. Box 550
Richland, WA 99352

AND TO: Westinghouse Hanford Company
P.O. Box 1970
Richland, WA 99352

Chapter 173-303 Washington Administrative Code (WAC), entitled "Dangerous Waste Regulations", designates those solid wastes which are dangerous or extremely hazardous to the public health and environment, and provides for surveillance and monitoring of dangerous wastes until they are detoxified, reclaimed, neutralized, or disposed of safely. The wastes generated from maintenance-type activities at the 200 Area tank farm facilities located on the Hanford Site in Richland, Washington, are solid waste (173-303-016(4)) and therefore subject to designation and appropriate management under Chapter 173-303 WAC.

The United States Department of Energy-Richland Operations (herein referred to as DOE-RL) is the owner of the Hanford Site in Richland, WA, including the 200 Area tank farm facilities located thereon. Westinghouse Hanford Company (herein referred to as WHC) is the operator of the 200 Area tank farm facilities located on the Hanford Site in Richland, WA. WHC manages, operates, and maintains these facilities pursuant to a contract with DOE-RL. DOE-RL and WHC are persons whose acts or processes produce dangerous waste or whose acts first cause a dangerous waste to become subject to regulation (WAC 173-303-040).

On January 23, 1992, DOE-RL received notification through WHC's Occurrence Reporting procedure that waste management problems existed in the 200 Area tank farms. As required through DOE Orders, on January 24, 1992, DOE-RL issued Unusual Occurrence (UO) Report WRL--WHC-TANKFARM-1992-0007, citing deficiencies in solid waste environmental compliance issues. The UO cited deficiencies with "both administrative controls and issues pertaining to container packaging, inventories, and storage."

Facility inspection by the Washington State Department of Ecology (Ecology) on August 31, 1992, record review of documents including WHC audits and surveillances from 1989 through 1992, and Unusual Occurrence Report WRL--WHC-TANKFARM-1992-0007, revealed that DOE-RL and WHC are not in compliance with the Dangerous Waste Regulations, Chapter 173-303 WAC, as follows:

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DOE-RL and WHC have failed to designate approximately 2,000 containers of solid waste in violation of WAC 173-303-170(1)(a) and the procedures of WAC 173-303-070.

The containers consist of 55-gallon steel drums and wooden burial boxes.

Revised Code of Washington (RCW) 70.105.095 reads in part: "Whenever on the basis of any information the Department determines that a person has violated or is about to violate any provision of this chapter, the department may issue an order requiring compliance either immediately or within a specified period of time."

In view of the foregoing and in accordance with RCW 70.105.095:

IT IS ORDERED THAT the United States Department of Energy-Richland Operations and Westinghouse Hanford Company designate the solid waste within the 200 Area tank farm waste containers identified in UO Report ~~URL~~-WHC-TANKFARM-1992-0007 within one year of receipt of this Order. The following designation and reporting requirements are in accordance with WAC 173-303-070 and WAC 173-303-220, respectively.

Interim steps toward compliance are modeled, in part, after two corrective action plans that WHC has presented to Ecology for achieving compliance at the 200 Area tank farms: a Corrective Action Schedule (presented August 19, 1992) and a Strategy for Management of Backlog Waste (presented November 6, 1992).

1. Within forty (40) calendar days of receipt of this Order, DOE-RL and WHC shall provide Ecology with a report identifying the current status for each waste container identified in this Order. Individual container status shall be documented by completing WHC's Backlog Waste Information Sheets or equivalent. Copies of each individual container Backlog Waste Information Sheet or equivalent shall be provided.
2. Within forty (40) calendar days of receipt of this Order, DOE-RL and WHC shall provide Ecology with a report identifying dangerous waste designation practices currently in place for ongoing waste generation within the 200 Area tank farms. Copies of waste designation procedure(s) governing 200 Area tank farm waste generation shall be provided with the report.
3. Within forty (40) calendar days of receipt of this Order, DOE-RL and WHC shall provide Ecology with a plan for review and approval detailing the established criteria and procedures for waste inspection, segregation, sampling, designation, and repackaging of all containers reported in item #1. The report shall include sampling plan criteria for different contaminated media, i.e., soils, compactable waste, high efficiency particular air (HEPA) filters, etc., and a schedule for completing the work within the time allowed under this Order.

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4. Within forty (40) calendar days of receipt of this Order, DOE-RL and WHC shall provide Ecology with a plan for review and approval documenting the readiness of an appropriate area for waste inspection, segregation, sampling, and repackaging of all waste containers identified in item #1.
5. Immediately upon approval from Ecology for items #3 and #4 of this Order, DOE-RL and WHC shall implement the respective plan(s).
6. Within sixty (60) calendar days of receipt of this Order, DOE-RL and WHC shall ship all containers of dangerous waste and suspected dangerous waste identified in item #1 to an on-site facility which meets interim status facility standards under WAC 173-303-400.
7. Within ninety (90) calendar days of receipt of this Order, DOE-RL and WHC shall provide Ecology with a report documenting progress in waste inspection, segregation, sampling, designation, and repackaging of each waste container identified in item #1.
8. Within one (1) calendar year of receipt of this Order, DOE-RL and WHC shall complete waste designations for all containers identified in item #1.
9. Within one (1) calendar year of receipt of this Order, DOE-RL and WHC shall submit to Ecology a report detailing the final designation and selected waste management option for all containers identified in item #1. The report shall include, for each container, a description of the waste (e.g., common name/dangerous constituent(s), dangerous waste number(s), physical form), the waste classification (e.g., low-level waste, dangerous waste, mixed waste), copies of all field/laboratory analyses, and the treatment or disposal date and location (past or pending).

Compliance with this Order does not relieve DOE-RL or WHC of responsibility for compliance with any applicable federal, state, or local laws or ordinances.

Any person who fails to take corrective action as specified in a compliance order shall be liable for a civil penalty of not more than ten thousand dollars per violation, for each day of continued noncompliance. Noncompliance with any section or subsection of Chapter 173-303 WAC constitutes a separate violation. In addition, the Department may suspend or revoke any permits and/or certificates issued under the provisions of this Chapter to a person who fails to comply with an order directed against him or her.

This Order is issued under the provisions of Chapter 70.105 RCW. Any person aggrieved by this Order may obtain review thereof by application, within thirty (30) days of receipt of this Order, to the Washington Pollution Control Hearings Board, P.O. Box 40903, Olympia, WA 98504-0903. Concurrently, a copy of the application must be sent to Laura Russell, RCRA Compliance Inspector, Washington State Department of Ecology, 7601 W. Clearwater, Suite 102,

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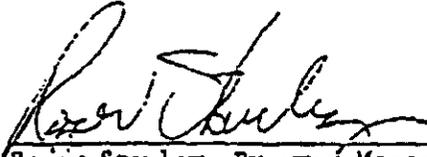
ORDER No: 93NM-201

March 10, 1993

Page 4

Kennawick, WA 99336 and to the Enforcement Officer of the Department of Ecology, P.O. Box 47600, Olympia, WA 98504-7600. The procedures for appealing orders and/or penalties issued by the Department of Ecology are set forth in Chapter 43.21B RCW and the regulations adopted thereunder.

DATED this 10TH day of March, 1993, at Olympia, Washington.



Roger Stanley, Program Manager
Nuclear and Mixed Waste Management Program
Department of Ecology

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APPENDIX C-3A

RESPONSE TO COMPLIANCE ORDER 93NM-201 AND PENALTY 93NM-202

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Department of Energy

Richland Field Office

P.O. Box 550

Richland, Washington 99352

94-RPS-025

OCT 27 1993

Ms. Megan Lerchen
Environmentalist
State of Washington
Department of Ecology
P.O. Box 47600
Olympia, Washington 98504-7600

Enforcement Officer
State of Washington
Department of Ecology
P.O. Box 47600
Olympia, Washington 98504-7600

Ms. Laura Russell
RCRA Compliance Inspector
State of Washington
Department of Ecology
7601 W. Clearwater, Suite 102
Kennewick, Washington 99336

Addressees:

RE-SUBMITTAL OF BACKLOG WASTE ANALYSIS PLAN PER ECOLOGY ORDER 93NM-201

- References:
- 1) Letter, D. Nylander, Ecology, to J. D. Wagoner, RL, and T. M. Anderson, WHC, "Letter, Ecology to DOE-RL/WHC, Submittal of Waste Analysis Plan, Dated September 15, 1993," 9307806B, dated September 27, 1993.
 - 2) Letter, D. Nylander, Ecology, to J. D. Wagoner, RL, and T. M. Anderson, WHC, "Submittal of Waste Analysis Plan," 9302430.3B, dated September 15, 1993.

On September 15, 1993, the State of Washington Department of Ecology (Ecology) rejected the Tank Farms Backlog Waste Analysis Plan (WAP) (Reference 2) that was submitted by the U.S. Department of Energy, Richland Operations Office (RL) and the Westinghouse Hanford Company (WHC) on August 30, 1993. On September 27, 1993, Ecology provided written comments on the WAP (Reference 1). Based on discussions with Ecology concerning the rationale for rejection of the WAP, negotiations to resolve the comments began on September 28, 1993, with a small team of experienced technical members from WHC and Ecology. The objective of the team was to resolve all issues associated with the WAP and have a plan approved by Ecology by October 29, 1993.

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Addressees
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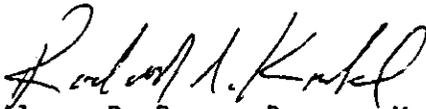
Enclosed with this letter is the revised Tank Farms Backlog WAP that has been cooperatively written by the team. It is our belief that the plan now meets all of Ecology's expectations and should be immediately approvable.

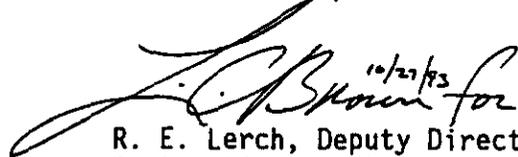
RL appreciates the cooperation and assistance provided by Ecology in resolving the concerns with the Tank Farms Backlog WAP. We feel that the efforts that have gone into revising the plan have demonstrated our ability to work together in a cooperative manner to reach a successful conclusion. While we would hope that they are done in a different context, i.e., not in response to a compliance order, we look forward to using a similar approach on other issues.

If you have any questions or comments regarding this letter or require further information, please contact Mr. C. E. Clark, RL, at 376-9333, or Ms. C. K. Girres, WHC, at 372-0771.

Sincerely,

EAP:CEC

for 
James D. Bauer, Program Manager
Office of Environmental Assurance,
Permits, and Policy
DOE Richland Operations Office

 ^{10/27/93} *for*
R. E. Lerch, Deputy Director
Restoration and Remediation
Westinghouse Hanford Company

Enclosure

cc w/encl:
D. Butler, Ecology
D. Duncan, EPA
W. Hamilton, Jr., WHC
G. Jackson, WHC
C. Geier, WHC
R. Pierce, WHC
H. Tilden, PNL



93-RPS-328

Department of Energy

Richland Field Office

P.O. Box 550

Richland, Washington 99352

AUG 30 1993

Ms. Megan Lerchen
Environmentalist
State of Washington
Department of Ecology
P.O. Box 47600
Olympia, Washington 98504-7600

Enforcement Officer
State of Washington
Department of Ecology
P.O. Box 47600
Olympia, Washington 98504-7600

Ms. Laura Russell
RCRA Compliance Inspector
State of Washington
Department of Ecology
7601 W. Clearwater, Suite 102
Kennewick, Washington 99336

Mr. Dan Duncan
Environmental Engineer
U.S. Environmental Protection Agency
1200 6th Avenue, 5th Floor
Seattle, Washington 98101

Dear Addressees:

SUBMITTAL OF BACKLOG WASTE ANALYSIS PLAN

Enclosed for your review and approval is the Waste Analysis Plan (WAP) called for by Item 3 of Order 93NM-201 (Order), as revised by the Settlement Agreement entered into on June 30, 1993. As you know, the Settlement Agreement calls for the State of Washington Department of Ecology (Ecology) to approve this plan in writing by September 15, 1993.

The U.S. Department of Energy, Richland Operations Office (RL), Ecology, the Environmental Protection Agency (EPA), and the Westinghouse Hanford Company (WHC) have been involved in a series of workshops to develop the waste analysis plan. The attached waste analysis plan reflects the input of this team and the resolution of significant issues addressed during these workshops.

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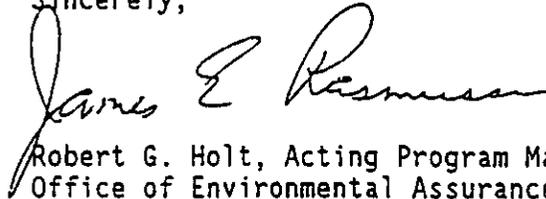
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93-RPS-328

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As we have discussed, specific references to Washington Administrative Code (WAC) 173-303-300 have been removed from this document. We understand that Ecology will provide a letter stating that, assuming all conditions of the plan are met, Ecology will not revisit confirmation of this waste under WAC 173-303-300. None of the parties intend for this plan to set a precedent for confirmation of any other waste.

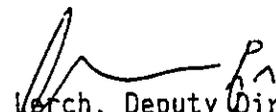
If you have any questions or comments regarding this letter or require further information, please contact Mr. C. E. Clark, RL, at 376-9333, or Ms. C. K. Girres, WHC, at 376-4036.

Sincerely,



Robert G. Holt, Acting Program Manager
Office of Environmental Assurance,
Permits, and Policy
DOE Richland Operations Office

EAP:SDS



R. E. Verch, Deputy Director
Restoration and Remediation
Westinghouse Hanford Company

Enclosure

cc w/encl:
W. Hamilton, Jr, WHC
G. Hofer, EPA
G. Jackson, WHC
C. Geier, WHC
R. Pierce, WHC
R. Stanley, Ecology

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Department of Energy

Richland Field Office

P.O. Box 550

Richland, Washington 99352

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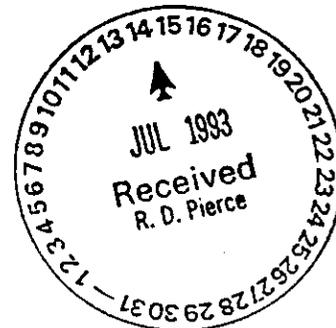
JUL 09 1993

Ms. Megan Lerchen
Environmental
State of Washington
Department of Ecology
P.O. Box 47600
Olympia, Washington 98504-7600

Enforcement Officer
State of Washington
Department of Ecology
P.O. Box 47600
Olympia, Washington 98504-7600

Ms. Laura Russell
RCRA Compliance Inspector
State of Washington
Department of Ecology
7601 W. Clearwater, Suite 102
Kennewick, Washington 99335

Mr. Dan Duncan
Environmental Engineer
U.S. Environmental Protection Agency
1200 6th Avenue, 5th Floor
Seattle, Washington 98101



Dear Addressees:

SUBMITTAL OF DRAFT BACKLOG WASTE ANALYSIS PLAN

On March 10, 1993, the State of Washington Department of Ecology (Ecology) issued Order Number 93NM-201 to the U.S. Department of Energy, Richland Operations Office (RL), and the Westinghouse Hanford Company (WHC). Subsequently, a Settlement Agreement to the Order was reached by the parties. This agreement requires a draft waste analysis plan to be submitted to Ecology by July 12, 1993. This submission satisfies this requirement of the Settlement Agreement.

This submission incorporates comments received from both Ecology and the U.S. Environmental Protection Agency as a result of workshops conducted from June 14, 1993, through July 1, 1993. We have found these meetings productive and look forward to continuing the interface we have begun. Our goal is to have all significant comments resolved by August 1, 1993.

93-RPS-271

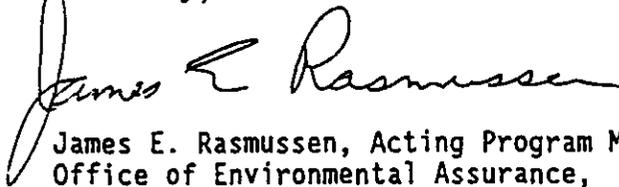
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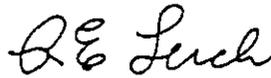
If you have any questions regarding this letter or require further information, please contact Mr. C. E. Clark, RL, at 376-9333, or Ms. C. K. Girres, WHC, at 376-6829.

Sincerely,



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

EAP:CEC



R. E. Lerch, Deputy Director
Restoration and Remediation
Westinghouse Hanford Company

Enclosure

cc w/encl:
W. Hamilton, Jr, WHC
G. Hofer, EPA
G. Jackson, WHC
C. Geier, WHC
R. Pierce, WHC
R. Stanley, Ecology

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Department of Energy

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Richland Field Office

P.O. Box 550

Richland, Washington 99352

93-RPS-258

JUN 25 1993



Ms. Laura Russell
RCRA Compliance Inspector
State of Washington
Department of Ecology
7601 West Clearwater, Suite 102
Kennewick, Washington 99336

Enforcement Officer
State of Washington
Department of Ecology
P.O. Box 47600
Olympia, Washington 98504-7600

Dear Ms. Russell and Enforcement Officer:

ADDITIONAL INFORMATION REQUESTED BY THE STATE OF WASHINGTON DEPARTMENT OF ECOLOGY (ECOLOGY) REGARDING THE FORTY DAY RESPONSE TO ORDER NUMBER 93NM-201

In a May 20, 1993, letter from Ecology to the U.S. Department of Energy, Richland Operations Office (RL) and the Westinghouse Hanford Company (WHC), additional information was requested regarding the forty day response from RL and WHC to Ecology Order Number 93NM-201. Ten separate issues were identified where additional information was needed. The additional information requested in the May 20, 1993, letter is provided below. The information was requested to be provided to Ecology by June 21, 1993. However in a telephone conversation between Mr. C. E. Clark of RL and Ms. Laura Russell of Ecology on that date, the due date for this additional information was extended to June 25, 1993.

Issue #1: What happened surrounding the reported change in dose rates between shipment from Tank Farms and receipt at T Plant? How has this discrepancy been explained? Are there drums at T Plant that have dose rates in excess of 2 millirem/hour? Please explain.

Response: Some variability in dose rates for a given container may be expected due to the field instrumentation used and the specific techniques of the person taking the reading, i.e., experience, subjectivity in measuring readings, and precision in detecting hot spots. T Plant maintains a database which shows the dose rates of the containers received. All containers received at T Plant which measured a dose rate greater than 2 millirem/hour were sent back to Tank Farms. Tank Farms inventoried the contents in these containers and shipped the containers to the Central Waste Complex (CWC) under Backlog Waste Information Sheets (BWISs). As such, there are no Tank Farm containers at T Plant with a measured dose rate greater than 2 millirem/hour.

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Issue #2: What does "TSD Accept Dt" define? Is it the date the drum was physically received at the Central Waste Complex, or does it represent another date?

Response: The "TSD Accept Dt" refers to the date the container was formally accepted at the CWC per WHC-IP-0871, "Receipt and Interim Staging of Backlog Waste." In some cases, this date may not be the same date the container was physically moved to the CWC. If problems existed with either the paperwork or the container, formal acceptance did not take place until the discrepancy was resolved. For example, if the BWIS was incomplete, it would have to be completed before formal acceptance could take place. Actual shipping dates can be traced using Radioactive Shipment Record (RSR) documentation found in the Solid Waste Information Tracking System (SWITS) and container files.

Issue #3: Section 3.1.2.7 CHARACTERIZATION/Sampling states, "Where process knowledge is not valid for characterization, then sampling and testing will be used for characterization...Sampling will be done using approved procedures and sampling plans..." Please provide copies of these "approved procedures and sampling plans."

Response: Few examples of procedures which address characterization of chemical contamination can be provided due to limited activity in this area within Tank Farms. Routine waste streams currently use conservative process knowledge to address chemical designation of the material as a dangerous waste. In the event of generation of nonroutine waste streams, where use of conservative process knowledge would not be adequate for designation, waste-specific sampling and analysis plans would be developed. WHC-SD-EH-AP-072, "Work Plan for Drilling and Sampling Activities Near Single-Shell Tank 241-T-106 in Response to GAO/RCED-89-157" is the only recent example where both chemical and radiological characterization was performed. A copy of this work plan has been provided to Ms. Laura Russell.

Issue #4: Section 3.3, Waste Characterized by Process Knowledge, first bullet, states, "Waste tank sludge/core sample and liquid analytical data from the single shell and double shell characterization will be used as documented process knowledge for waste directly attributed to sampling activities, tank maintenance, or other activities where waste is directed [directly] associated with tank contents." Please provide a status report identifying which tanks have been characterized based on waste tank sludge/core sampling and liquid analytical data. What chemical analyses have been completed? Are the analyses complete? What analyses are pending? Has the data been validated?

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JUN 25 1993

Response: The intent of the statement in the plan was to list sources of data to be used in characterizing waste generated by this activity. This information is primarily used to determine radionuclide concentrations and some potential chemical contamination. Waste tank sludge/core sampling activities have been performed and documented on tanks 241-C-112, 241-U-110 and 241-SY-101. These activities are reported in WHC-EP-0640, "Tank Characterization Data Report: Tank 241-C-112," WHC-EP-0643, "Tank Characterization Report for Single-Shell Tank 241-U-110," and WHC-EP-0589, "Tank 101-SY Window C Core Sample Results and Interpretation," and WHC-EP-0628, "Tank Window E Core Sample: Interpretation of Results." Answers to the detailed questions posed in Issue #4 are included in the above documents. These documents were provided to Ms. Laura Russell on June 22, 1993.

Issue #5: Section 3.4, Waste Characterized by Sampling and Analysis, states, "This waste stream encompasses waste that cannot be fully characterized by documented process knowledge." It further states, "Chemical properties will be determined by sampling and laboratory analysis when needed." Who determines when and if process knowledge is sufficient? When does this happen in the overall waste management process? When the decision is made to sample, what analytical methods are used? Is Appendix J in WHC-EP-0063, Revision 3 used?

Response: Issue number 5 refers to section 3.4 of the Tank Farms Solid, Low-Level and Radioactive Mixed Waste Certification Plan. This plan documents routine waste handling activities in Tank Farms pursuant to the requirements of Hanford Site Solid Waste Acceptance Criteria (WHC-EP-0063). This process was not utilized for management of backlog waste. However, decisions regarding the adequacy of process knowledge are made by the generating unit in either case. At Tank Farms, this decision is made by the manager, Solid Waste Operations in consultation with the Tank Farms Environmental Control Officer (ECO). In specific instances, the manager would also have consulted with technical experts in the Solid Waste Disposal and Regulatory Support Organizations.

Backlog waste process knowledge determinations were made at the time the backlog waste information sheet was completed. Confirmation and completion of process knowledge determinations will be conducted in accordance with the waste analysis plan now being developed in consultation with Ecology. For waste handling conducted pursuant to WHC-EP-0063, formal approval of process knowledge determinations is indicated by issuance of an approved storage/disposal approval record (SDAR).

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JUN 25 1993

If the decision is made to sample, the Mobile Sampling Laboratory assists the generator in preparing a sampling plan specific to the activity. Specific sampling criteria are taken from the guidelines in WHC-EP-0063-3, Appendix J. Again, Solid Waste Disposal and/or Regulatory Support Technical experts assist in making recommendations for analytical methods to be utilized.

Issue #6: Section 3.1.2.1, Training, references a "training plan specific to radioactive solid waste management." Please provide a copy of this training plan.

Response: There is currently no approved training plan specific to Tank Farms mixed waste management. WHC-SD-WM-EV-081, Revision 1, "Tank Farms Solid, Low-Level and Radioactive Mixed Waste Certification Plan," has been written, but has not been fully implemented.

This training plan will be developed prior to Tank Farms approval as a low-level waste generating unit by the WHC Solid Waste Disposal group and will be provided to Ecology when it is completed and approved. Training is currently conducted in accordance with course number 350560, "Waste Handling, Segregating, and Packaging - Tank Farms." The course description and lesson plans have been provided to Ms. Laura Russell.

Issue #7: Has Tank Farms received approval from Solid Waste Disposal as a low-level waste generator? Or is Tank Farms still in an "Approval Pending" status? Please provide current status of generator approval.

Response: Tank Farms' approval status remains "Approval Pending." A waste generating unit assessment was scheduled for June 15-17, 1993, to evaluate if Tank Farms was ready for "Approved" status. However, it has been postponed at Tank Farms' request. The assessment has been rescheduled for August 24-26, 1993.

Solid Waste Disposal continues to receive waste from Tank Farms based on container specific assessments. Due to the "Approval Pending" status of Tank Farms, Solid Waste Disposal performs an assessment of each container prior to shipment. Each shipment is inspected to ensure proper packaging, correct labeling, and accurate documentation.

Issue #8: Please provide SW-PE-WP-042, Attachment E, and Figure 1.

Response: The work plan for processing unknown backlog waste has been revised since the original submission in the Forty Day Response. A copy of the revised work plan, SW-PE-WP-0052, "Receive, Segregate, Repackage, and Dispose of "Unknown" Backlog Waste Drums in the 221-T Tunnel," is included for your information. Attachment E and Figure 1 are included in the revised work plan and have remained essentially unchanged.

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JUN 25 1993

Issue #9: Please provide sampling plans and procedures that address the deficiencies noted above.

Response: This issue is covered under Item 3 of the Order. Item 3 was recently modified under the final Settlement Agreement to state: "In addition to the waste inspection plan for the 'unknowns' previously provided and currently being supplemented, RL and WHC shall provide a draft waste analysis plan for the containers reported in Item 1 of the Order to Ecology by July 12, 1993. A final, RL approved, waste analysis plan shall be submitted to Ecology by September 1, 1993," for Ecology's approval according to the final Settlement Agreement.

The intent of both WHC-IP-0871, "Receipt and Interim Staging of Backlog Waste" and WHC-EP-0063-3, "Hanford Site Solid Waste Acceptance Criteria" is to address the acceptance criteria for acceptance at the Hanford Facility TSD unit. These documents are not intended to provide sampling plans and procedures. Specific procedures are relegated to working level documents specific to the generating or TSD unit managing the waste.

RL and WHC shall provide these plans and procedures as part of the draft waste analysis plan to be delivered by July 12, 1993.

A specific sampling plan has not been written for the repackaging of the "unknowns" at T Plant. Instead, Sampling Analysis Forms (SAFs) have been prepared by Hanford Analytical Services Management for potential waste types. These SAFs specify all possible analytes and analytical methods for a waste type. The Solid Waste Assessment Team (SWAT) members make the determination in the field, using their best professional judgement, on what sampling is necessary to complete characterization. The Mobile Sampling Laboratory performs sampling per their procedures and the SAF. Analytical results are then returned to SWAT for interpretation.

Issue #10: Where are the 2000+ backlog waste containers from tank farms going to be processed for final acceptance? Is the plan to transport those already in CWC to T Plant? If so, explain why work required under the Order cannot be performed in CWC or some other facility that already has interim status. GOE/WHC's decision to change repackaging facilities from CWC to T Plant, a facility that currently does not have interim status, will not constitute acceptable justification for violating the Order's established timelines for designation if for some unforeseen reason there are delays in T Plant's receipt of interim status. Please discuss.

Response: RL and WHC have not decided the exact location where confirmation, repackaging, and characterization work will take place. Several options are being considered but no location currently exists where this work can be performed. T Plant is the most viable option for processing the backlog wastes, but other locations are being considered for portions of the work. Final selection will be made as the preparation of the waste analysis plan progresses.

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Ms. Russell and Enforcement Officer -6-
93-RPS-258

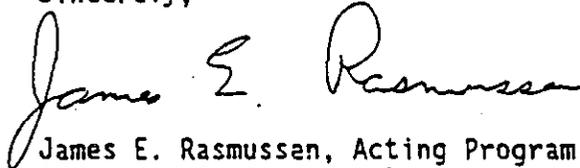
JUN 25 1993

Of all TSD units currently under interim status, only the CWC is authorized to accept waste from other generating or TSD units. In order for a facility to process waste under interim status, several criteria must be met. First, a facility must have the proper ventilation to meet air regulations as well as other safety documentation. Second, room to open, sort, and sample containers must be available. CWC does not meet these criteria.

T Plant will meet the above criteria once under interim status. In addition, the lessons learned from processing the "unknowns" can be applied to the remainder of the backlog waste. Work procedures, equipment, and personnel experienced in waste reprocessing will all be available. These facts have been communicated to Ecology. The recent Settlement Agreement to the Order recognizes the need to prepare T Plant by supplementing Item 6 of the Order.

Should you have any questions regarding this transmittal, please call Mr. C. E. Clark of my staff on 376-9333 or Mr. E. M. Greager, WHC, on 376-3132.

Sincerely,



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

EAP:CEC



R. E. Lerch, Deputy Director
Restoration and Remediation
Westinghouse Hanford Company

Enclosure:

SW-PE-WP-0052 "Receive, Segregate,
Repackage and Dispose of the
"Unknown" Backlog Waste Drums in
the 221-T Tunnel"

cc w/o encl:

J. Boda, EM-322
M. Crosland, EM-5
D. Ruge, GC-11
S. Woodbury, EM-222
T. DuBois, EM-36
A. Teimouri, RL
B. Erlandson, WHC
E. Greager, WHC
R. Lerch, WHC

9413094.0226



Department of Energy

Richland Field Office

P.O. Box 550

Richland, Washington 99352

93-RPS-239

JUL 10 1993

Ms. Laura Russell
RCRA Compliance Inspector
State of Washington
Department of Ecology
7601 West Clearwater, Suite 102
Kennewick, Washington 99336

Enforcement Officer
State of Washington
Department of Ecology
P.O. Box 47600
Olympia, Washington 98504-7600

Dear Ms. Russell and Enforcement Officer:

NINETY DAY RESPONSE TO ORDER NUMBER 93NM-201

On March 10, 1993, the State of Washington Department of Ecology (Ecology) issued Order Number 93NM-201 to the U.S. Department of Energy, Richland Operations Office (RL) and the Westinghouse Hanford Company (WHC). The Order alleged failure to designate approximately 2,000 containers of waste in accordance with Washington Administrative Code (WAC) Chapter 173-303-170(1)(a) and -070. The Order identified nine interim compliance actions to be undertaken by RL and WHC. This submission constitutes the response to Item 7, which was required within 90-days, as provided below:

7. "Within ninety (90) calendar days of receipt of this Order, DOE-RL and WHC shall provide Ecology with a report documenting progress in waste inspection, segregation, sampling, designation, and repackaging of each waste container identified in item #1."

The recently developed "Settlement Agreement" supplemented Item 7 as follows:

"DOE-RL and WHC shall apprise Ecology of their progress and problems in meeting the schedule set forth in the waste analysis plan to confirm or complete designation of the solid waste. Ecology, DOE-RL, and WHC will work together to achieve their mutually agreed upon goals."

The following letter report addresses the above issues.

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JUN 10 1993

Before noting Item 7 progress, Item 6 response submitted May 12, 1993, needs to be amended. One last backlog waste drum was discovered late on May 11, 1993, and shipped before midnight that same day. Therefore, seven, not six, drums were shipped from Tank Farms to the Central Waste Complex (CWC).

PROGRESS

All 2,544 containers that were generated and backlogged within Tank Farms have been moved and are currently being stored either at the CWC or at T Plant. The 2,289 containers that are at the CWC are being managed in compliance with WAC 173-303. They are all visually inspected on a weekly basis according to existing procedures. Inspections have not identified any significant problems. The containers have all been segregated according to their hazard class and have been completely designated via completion and approval of the Backlog Waste Information Sheet (BWIS). Sampling of these containers is not planned unless there is a reason to suspect that the original designation may be inaccurate. Repackaging of the containers is not required unless the original container leaks or otherwise deteriorates.

The "unknowns" containers at T Plant are also being inspected weekly according to an existing procedure. Work at T Plant to sample, designate, repackage, and segregate "unknowns" is continuing. Planning for the processing of the remainder of Backlog waste is also underway. The Notice of Intent to store and treat waste at T Plant was submitted over 150 days ago with no apparent comment from the public or Ecology. Based on "no response," the modified Part A Application that includes the above activities will be submitted in about a week. In preparation for the new Part A for storage, activities are underway to develop and implement interim status standard procedures for containers; the activities are targeted for completion in September 1993. In addition, a revised "unknowns" work plan for drums and a new plan for boxes has been drafted and is in the approval process. These two work plans will also be used for the backlog waste, and will be formally transmitted to Ecology once approved.

Before the last backlog waste container was shipped, Hanford personnel began a lengthy quality check of the BWISs and the backlog databases against the containers in the field. Discrepancies were found and appropriate corrections made. A brief summary of significant discrepancies and their correction status is provided in Enclosure 1. An Occurrence Report is being developed to document these discrepancies. Finally, the current location of each container was checked and updated during this review.

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JUN 10 1993

Relevant portions of the Solid Waste Information Tracking System (SWITS) database, BWISs, and the Unknowns database are enclosed. All information identifying the current status of each waste container is contained in the SWITS printout or the Unknowns database (Enclosure 1). In addition, hard copies of individual BWISs are provided as Enclosure 2. There are 2,289 BWIS container data sheets (copied in green to distinguish them from our first submittal). These BWISs are an important benchmark, in that they will be the baseline from which we can all measure our success.

Significant effort continues on a Waste Analysis Plan that will confirm or complete designation of interimly staged Tank Farms waste. Based on the recently completed "Settlement Agreement," a draft Waste Analysis Plan will be submitted to Ecology no later than July 12, 1993. A final approved plan is due to Ecology by September 1, 1993, (see Enclosure 3). Due to the limited one year period to confirm designations, Hanford personnel are exploring the use of equipment and facilities both internal and external to the site. The options include utilizing Non Destructive Examination equipment for physical contents confirmation, thus enhancing the limited capabilities of the Transuranic Waste Storage and Assay Facility within 224-T.

PROBLEMS

Processing of "unknowns" has resumed at T Plant, after a down time needed to pump accumulation tanks and resolve safety issues associated with the revised work plan. The lengthy "unknowns" work plan review involved safety concerns associated with drum opening. Safety concerns were raised about potential radiation spread and worker safety associated with unanticipated chemical action or reaction. These concerns have been resolved. In addition, because T Plant has accumulation tanks that must be pumped on a less than 90 day cycle, "unknowns" processing in the "tunnel" has been stopped on two occasions. The "tunnel" must be cleared of "unknowns" processing each time this 90 day accumulation period nears. Because of the above issues, no processing was completed for nearly three months this spring, and "unknowns" drum processing may not be completed by the targeted June 30, 1993, date. Processing of "unknowns" box waste may also be late to start, in that they are to be processed after the drums. A revised schedule is being developed.

In an effort to document RL's and WHC's understanding of the status of all actions found in Ecology's Order 93NM-201, a summary listing is provided in Enclosure 3. The listing identifies the item, its current status, and the continuing activities.

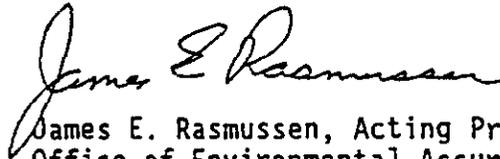
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93-RPS-239

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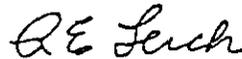
If you have any questions regarding this letter report or require further information, please contact Mr. C. E. Clark, RL, at 376-9333, or Mr. R. D. Pierce, WHC, at 376-5681.

Sincerely,



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

EAP:CEC



R. E. Lerch, Deputy Director
Restoration and Remediation
Westinghouse Hanford Company

Enclosures:

1. SWITS and Unknowns databases
2. Backlog Waste Information Sheets
3. Summary of Order Activities

cc w/o encls:

G. W. Jackson, WHC
W. H. Hamilton, Jr., WHC
M. A. Payne, WHC
R. D. Pierce, WHC

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Department of Energy

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Richland Field Office

P.O. Box 550

Richland, Washington 99352

May 12, 1993

93-RPS-209

Ms. Laura Russell
RCRA Compliance Inspector
State of Washington
Department of Ecology
7601 West Clearwater, Suite 102
Kennewick, Washington 99352



Enforcement Officer
State of Washington
Department of Ecology
P.O. Box 47600
Olympia, Washington 98504-7600

Dear Ms. Russell and Enforcement Officer:

SIXTY DAY RESPONSE TO ORDER NUMBER 93NM-201

On March 10, 1993, the State of Washington Department of Ecology (Ecology) issued Order Number 93NM-201 to the U.S. Department of Energy, Richland Operations Office (RL) and the Westinghouse Hanford Company (WHC). The Order alleged failure to designate approximately 2,000 containers of waste in accordance with the Washington Administrative Code (WAC) Chapter 173-303-170(1)(a) and 070. The Order identified nine interim compliance actions to be undertaken by RL and WHC. A response to Item 6 of the Order, which was required within 60 days, is provided below.

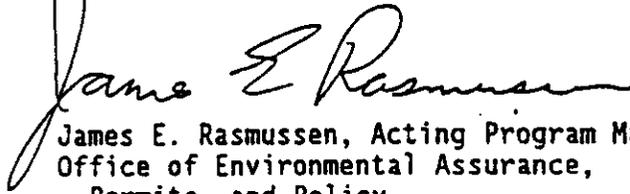
6. Within sixty (60) calendar days of receipt of this Order, RL and WHC shall ship all containers of dangerous waste and suspected dangerous waste identified in item #1 to an onsite facility which meets interim status facility standards under WAC 173-030-400.

In previous verbal communications, Ecology was informed that all of the drums covered by the Order had been placed in the Central Waste Complex (CWC) by April 30, 1993. However, on May 6, 1993 six drums of Backlog Waste with PIN numbers that were in the inventory provided in the 40 day submittal to Ecology were found in TX Tank Farm. On May 11, 1993 those six containers were accepted for storage at the CWC. Therefore, on this date all containers of dangerous waste and suspect dangerous waste identified in Item 1 of the Order, have been placed in compliant storage in CWC. A total of 2,273 containers were sent to CWC. In addition, 221 containers of unknown waste were shipped to T plant for evaluation.

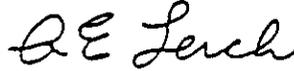
Ms. Russell and Enforcement Officer -2-
93-RPS-209

Should you have any questions regarding this transmittal, please call
Mr. C. E. Clark of my staff on (509) 376-9333, or Mr. B. G. Erlandson, WHC, on
(509) 376-5969.

Sincerely,


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

EAP:CEC



R. E. Lerch, Deputy Director
Restoration and Remediation
Westinghouse Hanford Company

cc: B. G. Erlandson, WHC
W. H. Hamilton, WHC
G. W. Jackson, WHC
R. E. Lerch, WHC
M. A. Payne, WHC

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Department of Energy

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

APR 21 1993



93-RPS-186

Ms. Laura Russell
RCRA Compliance Inspector
State of Washington
Department of Ecology
7601 West Clearwater, Suite 102
Kennewick, Washington 99336

Enforcement Officer
State of Washington
Department of Ecology
P.O. Box 47600
Olympia, Washington 98504-7600

Dear Ms. Russell and Enforcement Officer:

FORTY DAY RESPONSE TO ORDER NUMBER 93NM-201

On March 10, 1993, the State of Washington Department of Ecology (Ecology) issued Order Number 93NM-201 to the U.S. Department of Energy, Richland Operations Office (RL) and the Westinghouse Hanford Company (WHC). The Order alleged failure to designate approximately 2,000 containers of waste in accordance with the Washington Administrative Code Chapter 173-303-170(1)(a) and -070. The Order identified nine interim compliance actions to be undertaken by RL and WHC. Responses to Items 1 through 4 of the Order, which were required within 40 days, are provided below.

1. Within forty (40) calendar days of receipt of this Order, DOE-RL and WHC shall provide Ecology with a report identifying the current status for each waste container identified in this Order. Individual container status shall be documented by completing WHC's Backlog Waste Information Sheets or equivalent. Copies of each individual container Backlog Waste Information Sheet or equivalent shall be provided.

Hard copies of relevant portions of the Solid Waste Information and Tracking System (SWITS) database, Backlog Waste Information Sheets (BWISs), and the Unknowns database are provided. All information identifying the current status of each waste container is contained in the SWITS printout or the Unknowns database (Enclosure 1). In addition, hard copies of individual BWISs are provided as Enclosure 2. There are 2,274 BWISs container data sheets.

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APR 21 1993

2. Within forty (40) calendar days of receipt of this Order, DOE-RL and WHC shall provide Ecology with a report identifying dangerous waste designation practices currently in place for ongoing waste generation within the 200 Area tank farms. Copies of waste designation procedure(s) governing 200 Area tank farms generation shall be provided with the report.

Effective Friday, April 16, 1993, the generation of dangerous waste by Tank Farm operations was severely curtailed. Only safety related and other high priority work specifically authorized by Director; Waste Tanks is currently in progress. Other work will be released only when the appropriate waste preplanning requirements have been satisfied. To the extent that waste continues to be generated in Tank Farms, it is being done in accordance with the enclosed procedures (Enclosure 3).

3. Within forty (40) calendar days of receipt of this Order, DOE-RL and WHC shall provide Ecology with a plan for review and approval detailing the established criteria and procedures for waste inspection, segregation, sampling, designation, and repackaging of all containers reported in item #1. The report shall include sampling plan criteria for different contaminated media, i.e., solid, compactable waste, high efficiency particulate air (HEPA) filters, etc., and a schedule for completing the work within the time allowed under this Order.
4. Within forty (40) calendar days of receipt of this Order, DOE-RL and WHC shall provide Ecology with a plan for review and approval documenting the readiness of an appropriate area for waste inspection, segregation, sampling, and repackaging of all waste containers identified in item #1.

The plans responsive to Items 3 and 4 are encompassed in two documents, WHC-IP-0871 and WHC's T Plant Work Plan SW-PE-WP-0042 (Enclosure 4). Waste with sufficient process knowledge to complete a BWISS is being managed per the requirements of WHC-IP-0871, "Receipt and Staging of Backlog Wastes." Plans are underway to characterize and/or repackage backlog waste as necessary before treatment and/or disposal being initiated per the Hanford Solid Waste Acceptance Criteria (EP-0063). Waste with insufficient process knowledge, titled, "Unknowns," are processed through T Plant, as described in Work Plan SW-EP-WP-0042, "Receive, segregate, repackage, and dispose of unknown backlog waste containers in the 221-T Tunnel." Currently, only drums are addressed specifically in the work plan. The drum work plan will be modified for use with boxed waste; however, the general methods used in the work plan are expected to remain the same. A modified procedure to manage the receipt, segregation, repacking and disposal of unknown waste in large boxes will be prepared by June 30, 1993. The management of these containers may necessitate compliance with air emission requirements as well as meeting As Low as Reasonably Achievable requirements.

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Ms. Russell and Enforcement Officer -3-
93-RPS-186

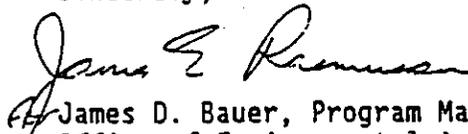
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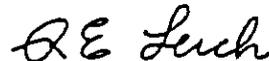
T Plant has been selected as the facility to perform necessary inspection, segregation, sampling, and repackaging of Unknown waste as identified in T Plant's work plan. T Plant is also assumed to be the location for additional characterization and repacking of "Backlog Waste," as part of the second stage of that program (after T Plant's Notice of Intent has had appropriate review and a modified Part A permit application submitted and accepted by Ecology). Again, the same work plan used for Unknowns will be used for Backlog Waste.

To the extent that Items 3 and 4 call for plans and schedules to manage containers of "unknowns" which must be opened at Tank Farms and plans and schedules for the complete characterization of waste for treatment and disposal (i.e., beyond that required to designate waste for safe storage), those requirements are the subject of a dispute invoked by RL in an April 2, 1993, letter from Mr. S. H. Wisness, RL to Mr. R. F. Stanley, Ecology, and have also been challenged in an appeal filed April 9, 1993, by RL and WHC with the Pollution Control Hearings Board (PCHB Number 93-64).

If you have comments or questions regarding this letter, please contact Mr. C. E. Clark, RL, on 376-9333, or Mr. B. G. Erlandson, WHC, on 376-5969.

Sincerely,


James D. Bauer, Program Manager
Office of Environmental Assurance,
Permits, and Policy
DOE Richland Operations Office



R. E. Lerch, Deputy Director
Restoration and Remediation
Westinghouse Hanford Company

Enclosures:

1. Container Status
2. Backlog Waste Information Sheets
3. Tank Farm Plant Operating Procedures
4. Backlog Waste Management Plan

cc w/o encl:

B. G. Erlandson, WHC
G. W. Jackson, WHC
R. E. Lerch, WHC

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Department of Energy

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

93-RPB-149

MAR 26 1993

Ms. Laura Russell, RCRA Compliance Inspector
State of Washington
Department of Ecology
7601 Clearwater, Suite 102
Kennewick, Washington 99336

Enforcement Officer
State of Washington
Department of Ecology
P.O. Box 47600
Olympia, Washington 98504-7600



Dear Ms. Russell and Enforcement Officer:

APPLICATION FOR RELIEF FROM PENALTY NO. 93NM-202

Enclosed is an Application for Relief from Penalty from the U.S. Department of Energy, Richland Field Office (RL) and Westinghouse Hanford Company (WHC) in response to the Notice of Penalty No. 93NM-202. RL and WHC are applying for mitigation or remission of the aforesaid penalty. Several factors, as discussed in the response, support mitigation of the penalty.

Should you have any questions regarding this Relief from Penalty Application, please contact Mr. C. E. Clark of RL on (509) 376-9333 or J. R. Kaspar of WHC on (509) 373-2728.

Sincerely,

James D. Bauer
James D. Bauer, Program Manager
Office of Environmental Assurance,
Permits, and Policy
DOE Richland Field Office

R. E. Lerch

R. E. Lerch, Deputy Director
Restoration and Remediation
Westinghouse Hanford Company

Enclosure

cc w/encl:
R. F. Stanley, Ecology

cc w/o encl:
H. D. Harmon, WHC
G. W. Jackson, WHC
R. E. Lerch, WHC
P. J. Mackey, WHC

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APPENDIX C-4

ETHYLENE GLYCOL DISCHARGE FROM BUILDING 309E
TO THE 300 AREA PROCESS TRENCH — MAY 1993

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STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

601 W. Clearwater, Suite 102 • Kennewick, Washington 99136 • (509) 546-2900

May 12, 1993



CERTIFIED MAIL

Mr. John Wagoner, Manager
U.S. Department of Energy
Richland Operations Office
P.O. Box 550
Richland, Washington 99352

EPA/State
ID Number: (WA7890008967)

Date and Time of Inspection:
April 30, 1993 0900-1400 hours

Mr. Tom Anderson, President
Westinghouse Hanford Company
P.O. Box 1970
Richland, Washington 99352

Dear Messrs. Wagoner and Anderson:

Re: Ethylene Glycol Discharge from Building 309E to the 300 Area Process Trench

On April 30, 1993, I responded to a reported discharge of ethylene glycol from Building 309E (309E) to the 300 Area process trench. I am preparing an enforcement recommendation to Department of Ecology (Ecology) management that will be based on findings from my investigation of the discharge. I want to ensure that both Department of Energy (DOE-RI) and Westinghouse Hanford Company (WHC) are aware of my preliminary concerns from the investigation. This early notification is intended to provide prompt and open communication which may lead to voluntary correction of deficient conditions. Positive action in response to this letter on your behalf may enable me to lessen the severity of any enforcement recommendation I make to Ecology management after completion of my investigation. My preliminary assessment of the discharge event follows:

A leak of 38% ethylene glycol solution from the 309E cooling system was identified at approximately 0125 hours on April 30, 1993 by WHC. Emergency response was initiated and clean up efforts began inside 309E promptly. At approximately 0200 hours, the HFM sump automatic sump pump in building 309E was turned off. The sump had collected leaked material and the sump pump was discharging the material to the 300 Area

9303751B

Messrs. Wagoner and Anderson

Page 2

May 12, 1993

process sewer. At approximately 0345 hours, green water was observed in the process trench weir which indicated an ethylene glycol content in the water. Liquid samples from the weir were taken at approximately 0615 hours. Ecology was notified of the spill at 0815 hours by the WHC Occurrence Notification Center (ONC) that approximately 400 gallons of ethylene glycol solution was spilled from the cooling system, that 90 gallons had been retrieved, and that there was potential discharge to the 300 Area process trenches above the CERCLA reportable quantity. Casey Ruud and I responded to the discharge report because there was nearly a seven hour delay in notification, and uncertainty of the environmental impact in the ONC report.

On May 11, 1993, Mr. Bill Retterer (WHC) informed me that approximately 795 gallons of 38% ethylene glycol solution were discharged to the process sewer from 309E. Mr. Retterer also reported laboratory results from samples taken from various points were received and conflicted with field analysis performed on the samples using a hydrometer. The hydrometer results indicated the cooling system contained 38% ethylene glycol. The laboratory results indicated 19% or less ethylene glycol. Mr. Retterer reported that groundwater monitoring wells around the process trenches were sampled on May 8, 1993 and that Battelle-Pacific Northwest Laboratories (PNL) was attempting to acquire an appropriate blank for analysis. He said PNL had obtained "small levels, very close to non-detectable" using Zerex brand automotive anti-freeze and the ethylene glycol used in the 309E cooling system, but he was unable to provide actual values for the groundwater samples.

The process used to determine discharge quantity and the sampling and analysis performed will be presented to Ecology on May 13, 1993 for review.

As discussed with DOE-RL and WHC representatives during my investigation, and subsequent conversations, there are several areas of non-compliance with the Washington State Dangerous Waste Regulations (Chapter 173-303 WAC) which need to be resolved.

Additionally, the impact of the discharge on the CERCLA cleanup of the process trenches and compliance with Consent Order DE-91NM-177, WAC 173-200 (Water Quality Standards for Ground Waters of the State of Washington), and WAC 173-216 (State Waste Discharge Permit Program) are yet to be determined.

My recommendation to Ecology management for formal enforcement will be influenced by the adequacy of the on-going assessments of waste quantity and environmental impact and the DOE-RL and WHC response to this compliance letter.

Messrs. Wagoner and Anderson

Page 3

May 12, 1993

Preliminary violations (violation), problem discussions (discussion), and recommended corrective actions (action) are included below to facilitate resolution:

ITEM 1

Violation:

WAC 173-303-145 (2) Notification. WHC was aware of the Dangerous Waste discharge to the environment by 0200 hours on April 2, 1993. Ecology was notified at 0815 hours. Notification of a discharge that threatens human health or the environment is required to be done immediately.

Discussion

Established DOE-RL orders and WHC notification procedures reportedly prevented immediate notification of the discharge to Ecology. DOE-RL orders and WHC procedures do not provide relief from statutory reporting requirements when there is conflict between them. The requirements of WAC 173-303-145 apply because ethylene glycol is a dangerous waste (DW), it was discharged into the environment, and there is a potential threat to the environment due to the discharge. DOE-RL and WHC did (do) not know the extent of the spill or discharge. No actions were taken to prevent the discharge from the process sewer to the process trench. No actions were taken to retrieve material discharged to the environment. When an assessment of the threat from a discharge cannot be made, or mitigation does not occur, a threat must be assumed until proven otherwise and the discharge must be immediately reported.

Action 1:

Within twenty-one (21) days of receipt of this letter, DOE-RL and WHC should modify or eliminate restrictive procedures for notification, put in place procedures that authorize facilities on Hanford responsible for DW discharges to immediately report to Ecology and other applicable authorities, and provide Ecology with copies of the new procedures. Immediate reporting to Ecology of a DW discharge on Hanford will be satisfied if the report is received by Ecology within two (2) hours after discovery of the discharge. Failure to meet this condition may result in citation for failure to report a non-permitted DW discharge.

ITEM 2

Violation:

WAC 173-303-210 (6) Ecology requested and was denied access to information necessary to assess a reported discharge of potentially large quantities of a dangerous waste to the environment.

1620 HARBOR
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Messrs. Wagoner and Anderson

Page 4

May 12, 1993

Discussion:

During my investigation of the discharge to the 300 Area process trenches, copies of several documents and records were requested. The emergency response and reporting procedures used by DOE-RL and WHC to respond to the discharge were requested. Copies of some of the records were provided to me after determination that they did not require processing through the DOE-RL and WHC clearance procedures by Mr. Rob Hastings (DOE-RL, Facility Representative) and Mr. Greg Henrie (WHC, RCRA Compliance Support) who were assisting with my investigation. The emergency procedures were not provided as requested. Mr. Brad Erlandson (WHC, Manager Regulatory Field Support) explained the emergency procedures would require clearance because of WHC policy and DOE-RL orders. I informed Mr. Erlandson of the specific authority under which I was making the request, the relationship between the requested documents and the discharge, and my interpretation that there was no justification for denial to the requested records. When my request was again denied, I explained that failure to provide the requested records would be considered a denial of access to those records in my investigation report.

Action 2:

Within twenty-one (21) days of receipt of this letter, DOE-RL and WHC should modify or eliminate restrictive internal procedures used to clear requested documents. Procedures should be put in place that authorize appropriate individuals on Hanford responsible for DW management, storage, treatment, disposal, or other activities regulated by outside agencies or authorities to provide records to outside regulatory authorities, when requested, when the regulator is acting within the scope of their statutory authority. Copies of the new procedures should be provided to Ecology.

Item 3

Violation:

Violations of HFFACO, Consent Order DE-91NM-177, or water quality regulations have not been determined pending investigations by appropriate unit managers responsible for 300 Area and process trench issues.

Observation:

DOE-RL, Ecology, and the Environmental Protection Agency (EPA) have expended significant energies in recent years to identify 300 Area waste streams, reduce 300 Area process waste volume, perform interim measures to minimize the impact of continued discharge to the process trenches until treatment is available, and to upgrade existing 300 Area facilities. These efforts did not successfully prevent this discharge of potentially large quantities of DW.

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Messrs. Wagoner and Anderson

Page 5

May 12, 1993

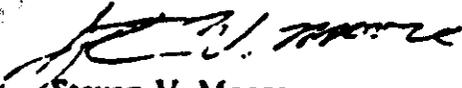
Action 3:

DOE-RL, Ecology and EPA unit managers should immediately meet to determine impacts to in-progress actions like the recent CERCLA Expedited Response Action, planned CERCLA clean up of the process trenches, construction of a 300 Area treatment facility, and Hanford Federal Facility Agreement and Consent Order (HFFACO) milestones (past, present and future) and Consent Order DE-91NM-177.

In order to correct these areas of non-compliance, please complete the suggested actions and return the enclosed "Certification of Compliance" within fourteen (14) days of completion of all actions. If DOE-RL objects (in whole or in part) to the requested actions, notification of the objection is required as described in HFFACO article VIII paragraph 29 within 21 days of receipt of this letter. Please be advised that failure to correct these areas of non-compliance may result in the issuance of an administrative order and/or penalty under RCW 70.105 (Hazardous Waste Management).

Should you have any questions or require clarification on any of the items in this compliance letter, please do not hesitate to call me at (509) 736-3023, or Melodie Selby at (509) 736-3021.

Sincerely,



Steven V. Moore
Dangerous Waste Compliance Inspector
Nuclear and Mixed Waste Management Program

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Messrs. Wagoner and Anderson
Page 6
May 12, 1993

Please complete and return this form to Steve Moore, Washington State Department of Ecology, 7601 W. Clearwater Avenue, Suite 102, Kennewick, Washington 99336, by June 15, 1993.

CERTIFICATE OF COMPLIANCE

As a legal representative of the U.S. Department of Energy, I certify to the best of my knowledge, the completion of items requested by the Washington State Department of Ecology on May 10, 1993, following investigation of a discharge of dangerous waste to the 300 Area process trenches located on the Hanford Reservation, 300 Areas, Facility ID Number WA7890008967 as shown below.

COMPLIANCE STATUS

(A facility representative shall list the completion date and initial for each item.)

<u>Items of Non-compliance</u>	<u>Due Date</u>	<u>Date Completed</u>	<u>Initials</u>	<u>Comments</u>
Item 1	<u>6/1/93</u>	_____	_____	_____
Item 2	<u>6/1/93</u>	_____	_____	_____
Item 3	<u>Immediate</u>	_____	_____	_____

Signature of DOE-RL Representative Date

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APPENDIX C-4A

**RESPONSE TO ETHYLENE GLYCOL DISCHARGE FROM
BUILDING 309E TO THE 300 AREA PROCESS TRENCH**

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Department of Energy

Richland Field Office

P. O. Box 550

Richland, Washington 99352

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93-RPA-226

JUN 02 1993



Mr. David C. Nylander, Manager
State of Washington
Department of Ecology
7601 West Clearwater Avenue, Suite 102
Kennewick, Washington 99336

Dear Mr. Nylander:

RESPONSE TO ENFORCEMENT RECOMMENDATION REGARDING ETHYLENE GLYCOL DISCHARGE FROM BUILDING 309E TO THE 300 AREA PROCESS TRENCH

On May 12, 1993, Mr. Steve Moore of your staff forwarded a letter to the U.S. Department of Energy, Richland Operations Office (RL) and Westinghouse Hanford Company (WHC) regarding an enforcement recommendation prepared in response to the discharge of ethylene glycol from the 309E Building to the 300 Area Process Trench. In the same letter, Mr. Moore requested completion of three specific actions. A response to each of these actions follows:

Action 1:

Within twenty-one (21) days of receipt of this letter, RL and WHC should modify or eliminate restrictive procedures for notification, put in place procedures that authorize facilities on Hanford responsible for DW discharges to immediately report to Ecology and other applicable authorities, and provide Ecology with copies of the new procedures.

Response:

The State of Washington Department of Ecology (Ecology) was notified of the ethylene glycol release approximately six hours after the release occurred. The Hanford Occurrence Notification Center (ONC) followed the established procedure in reporting this incident (i.e., waiting until the start of Ecology's normal business hours to notify Ecology of the release). This procedure was consistent with a letter from RL to the State of Washington Department of Community Development, Division of Emergency Management, which specified that oral notifications by RL would be made during the normal business hours (Letter, J. R. Hunter to E. Ackerman, "Notification Matrix for Occurrence Reporting," dated February 20, 1991).

Mr. David C. Nylander
93-RPA-226

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JUN 02 1993

In a letter from L. Russell (Ecology) to J. D. Bauer (RL), dated May 12, 1993, Ecology notified RL of its new procedure for reporting after-hour emergencies. In response to the concern expressed in your investigation the ONC's procedures to providing Hazmat Release/Spill Notifications (WHC-IP-0858, Section 3.0-B, Revision 4) have been revised to require immediate (within two hours) notification to Ecology in the event of a reportable release of a hazardous material that poses a threat to human health or the environment. A copy of this procedure is attached.

The ONC will continue to be the only organization at the Hanford Site to provide Ecology with formal spill/release notifications. Requirements and procedures are in place at the Hanford Site for notification of the ONC in the event of a release of a hazardous material.

Action 2:

Within twenty-one (21) days of receipt of this letter, RL and WHC should modify or eliminate restrictive internal procedures used to clear requested documents. Procedures should be put in place that authorize appropriate individuals on Hanford responsible for DW management, storage, treatment, disposal, or other activities regulated by outside agencies or authorities to provide records to outside regulatory authorities, when requested, when the regulator is acting within the scope of their statutory authority. Copies of the new procedure should be provided to Ecology.

Response:

Per the requirements of DOE Order 1430.1C, "Management of Scientific and Technical Information," and DOE Order 1430.2B, "Scientific and Technical Information Management Program," RL and its contractors must review any information provided to the public, including regulatory agencies, to assure that classified or sensitive information is not released. Document clearance processes have been established to maintain compliance with these DOE Orders and to assure information is properly reviewed prior to release.

Improving and streamlining the document clearance process is an ongoing effort. For instance, regulatory files are being set up at a number of facilities. These regulatory files include information that has already been cleared by RL and can be provided to a regulator immediately upon request. However, any information that is not part of existing regulatory files must be processed using existing clearance procedures.

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Mr. David C. Nylander
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Action 3:

RL, Ecology, and EPA unit managers should immediately meet to determine impacts to in-progress actions like the recent CERCLA Expedited Response Action, planned CERCLA clean up of the process trenches, construction of a 300 Area treatment facility, and Hanford Federal Facility Agreement and Consent Order (HFFACO) milestones (past, present and future) and Consent Order DE-91NM-177.

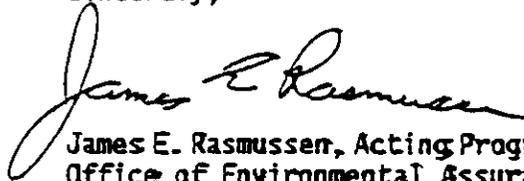
Response:

Attempts to reach EPA and Ecology 300 Area Unit Managers were initiated the afternoon of May 13, 1993. On May 14, 1993, a meeting was held to discuss future and ongoing actions to respond to the ethylene glycol release. The 300 Area Process Trenches Unit Managers from Ecology, EPA, and personnel from Pacific Northwest Laboratories, RL, and WHC were present at the meeting. As a result of this meeting, WHC is evaluating the potential for similar spills in other facilities.

The 300-FF-1 and 300-FF-5 Unit Managers discussed the potential impacts of the ethylene glycol discharge on the 300-FF-1 and 300-FF-5 Operable Units at the 300 Area Unit Manager's meeting held on May 27, 1993. The potential impacts concerning the discharge to groundwater will be discussed further as more data becomes available.

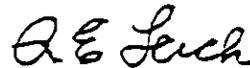
Should you have any questions regarding this transmittal, please call Mr. A. E. Teimouri, RL, on 376-6222, or Mr. E. M. Greager, WHC, on 376-3132.

Sincerely,



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

EAP:AET



R. E. Lerch, Deputy Director
Restoration and Remediation
Westinghouse Hanford Company

Enclosure

cc w/enc: =
B. G. Erlandson, WHC
E. M. Greager, WHC
G. W. Jackson, WHC

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appendix A. This call will be made on a 24-hour basis. Log the call in the ONC Communications Log.

~~Note: The exception to waiting until after the conference call is immediate notification of events involving CERCLA reportable quantities of hazardous material as specified by the Environmental Compliance personnel.~~

- g. Complete notifications to the following offsite agencies within two (2) hours of DOE-HQ EOC conference call completion and DOE-HQ Onsite Representative notification ~~unless the event involves a CERCLA reportable quantity of hazardous material~~ (see appendix A, Offsite Agencies Notification List):

- Washington State Department of Ecology (WDOE)
- Washington State Department of Health (WDOH)
- Oregon Department of Energy (ODOE)
- Environmental Protection Agency (EPA)

~~Note: If the event is a UO and CERCLA reportable, notify WDOE only once (i.e. a call to WDOE will be made immediately after the Environmental Compliance person requests notification to the NRC).~~

- g. Notifications to offsite agencies can include any information contained in the information log, BOP macro, and unofficial or official copies of the occurrence report, with the exception of names or telephone numbers of contractor personnel and classified matter. If there are further questions, the ONC duty officer will either provide the offsite agency with the work telephone number of the affected RL Facility Representative/Designee; or contact RL and request they call the offsite agency. These RL contacts shall be done on an "as needed" basis--only work telephone numbers will be utilized.

NOTE: Whenever possible, follow telephone instructions during a "UO" call and attempt to relay the message to a person. If no contact can be made, leave a message to that effect following the "UO" message. Normally, any offshift "UO" message is relayed the next business day.

- h. Complete the State Oral Notification Log, ensuring all information requested is complete, including the date, time, and name of each person notified.

NOTE: If the occurrence (UO or off-normal) involves a hazardous spill or environmental release, a minimum of one additional offsite notification is made to WDOE, at the direction of the affected Environmental Protection (EP) representative. For convenience, the WDOE contact for spills/releases is listed in appendix A. See section 3.8 for the procedure on reporting/documenting spills/releases.

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2. The ONC duty officer receiving notification of an unusual occurrence during off-shift hours (weekends and holidays, including RL or DOE-HQ notifications that run past 1600 hours) will follow the same procedure as during business hours, with the following exceptions:
- a. The notifications to the EDO and WHC Media Relations can be made the following day, (by 1000 hours) if there are no offsite implications pending or personnel safety involved in the event. This is at the discretion of the duty officer, based on time of day (i.e., 0300 hours).
 - b. Notifications to the offsite agencies (WDOE, WDOH, ODOE, and EPA) are due by 1000 hours the following business day, excluding weekends and approved holidays. The only exception to this time requirement is those unusual occurrences that, in the judgement of the duty officer, may be deemed "news worthy", or have actual or potential implications for the safety of site employees or the public. These events will require attempted notification to the offsite agencies within 2 hours of the DOE-HQ conference call. This will include leaving messages on answering machines, forwarding messages to an answering service, or using home telephone numbers, where available. Document all calls in the communication log. Examples of occurrences that may require an offshift call to the offsite agencies include:
 - * Deaths or serious injuries of Hanford employees occurring onsite or while on company related business.
 - * Willful misconduct of Hanford employees which adversely affect employee safety, the general public or the Hanford Site mission.
 - * Hanford Site events which potentially could cause significant media interest.
 - * Events which may have health and safety concerns and lead to precautionary evacuations of onsite workers.
- ~~Spills/releases to the environment which exceed reportable quantities or endanger human health or the environment.~~
- NOTE: Currently, the EPA does not utilize an answering machine; notification can wait until 1000 hours the next business day.
3. Any off-normal occurrence report that results in a press release shall require oral notification to the offsite agencies. These notifications can include the facility, date/time of event, and description of event. No names or telephone numbers of contractor personnel will be given. Any further questions will be directed to the RL contact for occurrence reporting, listed in appendix A. RL Public Relations will advise the ONC

of occurrence-related press releases concurrent with their release.

4. The ONC duty officer shall log all press release notifications in the State Oral Notification Log.
5. The ONC duty officer shall update the ONC Communications Log.
6. If any ADC classification concerns exist, the ONC duty officer shall notify the WHC Classification Office prior to making any offsite agency notifications. During off-shift hours, the Security Duty Officer (SDO) shall be contacted.

NOTE: Line management (i.e., Originators/Facility Managers) are responsible to ensure that no classified or Unclassified Controlled Nuclear Information (UCNI) are contained in verbal reports provided to the ONC. The ONC provides an extra safeguard to ensure no classified information is released offsite.

4.0 APPENDICES

1. Appendix A Offsite Agencies Notification List

Appendix A

OFFSITE AGENCIES NOTIFICATION LIST

TELEPHONE NUMBERS FOR OFFSITE ORAL NOTIFICATIONS:

- 5413094.0304
1. DOE-HQ ONSITE REPRESENTATIVE: AMI B. SIDPARA
372-2155 (WORK)
783-1938 (HOME)
85-8989 (PAGER)

NOTE: CALL IMMEDIATELY AFTER CONFERENCE CALL,
24-HOURS A DAY (LOCAL CALL)

ALTERNATE DOE-HQ ONSITE REPRESENTATIVE: ROBIE L. MONROE
372-3523 (WORK)
627-5319 (HOME)
85-9424 (PAGER)
 2. OREGON "UO" AND PRESS RELEASES (WORKING HOURS): 88-503-378-5544
MARY LOU BLAZEK

ALTERNATES: DAVID STEWART-SMITH 88-503-378-4040
BOB ROBISON 88-503-378-3194
RALPH PATT 88-503-378-8456
WILLIAM SANDERSON 88-503-378-4129
JANET FRANCO 88-503-378-3187
 - * OREGON OFF-SHIFT PRESS RELEASE NOTIFICATION: 88-503-373-2785
(PAGER NUMBER--ENTER THE ONC NUMBER AND HAVE
THE DUTY OFFICER CONTACT BLAZEK OR ALTERNATE.) 000E DUTY OFFICER
 3. ENVIRONMENTAL PROTECTION AGENCY 376-6623
"UO" AND PRESS RELEASES (NO OFF-SHIFT NUMBER) PAUL T. DAY (WORK)

ALTERNATE NUMBER FOR EPA 376-6865
AUDREY D. DOVE (WORK)
 4. WASHINGTON ECOLOGY "UO" AND PRESS RELEASES: 735-7581 (LOCAL)
THOMAS TEBB

ECOLOGY OFF-SHIFT PRESS RELEASE NUMBER:
*735-7581 WILL TRANSFER TO ANSWERING SERVICE
DURING OFFSHIFT HOURS--REQUEST PHONE CALL.
 5. WASHINGTON HEALTH "UO" AND PRESS RELEASES: 88-206-586-0254
AL CONKLIN (WORK)
88-206-493-0328
AL CONKLIN (HOME)

ALTERNATE NUMBER FOR DEPT. OF HEALTH: 88-206-586-3306
JOHN ERICKSON (WK)
88-206-786-5090
JOHN ERICKSON (HM)

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APPENDIX C-5

DANGEROUS WASTE NONCOMPLIANCE INSPECTION OF
SINGLE-SHELL TANK 241-BX-111 — MAY 1993

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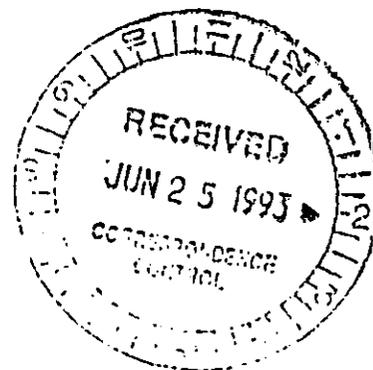
STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

7601 W. Clearwater, Suite 102 • Kennewick, Washington 99111 • (509) 546-2900

June 23, 1993

Mr. John Wagoner, Manager
U.S. Department of Energy
Richland Operations Office
P.O. Box 550
Richland, WA 99352

EPA/State ID Number:
(WA7890008967)



Mr. Tom Anderson, President
Westinghouse Hanford Company
P.O. Box 1970
Richland, WA 99352

Dear Messrs. Wagoner and Anderson:

Re: Pumping of Assumed Leaker Single Shell Tank 241-BX-111

Your representatives provided the formal action plan for pumping tank 241-BX-111 to me on June 14, 1993, to satisfy item one of my May 24, 1993, voluntary compliance letter to you. Additionally, the formal action plan was received by me on June 18, 1993, as part of your 21 day response to my May 24, 1993, letter from Mr. Ronald E. Gerton, Director Office of Tank Waste Storage, and postmarked June 17, 1993. In item one of my letter, I committed to a ten day review of the plan for approval or disapproval. This letter is Ecology's ten day written response to the formal action plan titled Pumping Of Assumed Leaker Single-Shell Tank 241-BX-111.

In my letter of May 24, 1993, a pump start date of July 31, 1993, was requested. The formal action plan calls for an August 1993 (no specified date) pump start date. It was explained that if United States Department of Energy Headquarters (USDOE-HQ) concurrence is obtained by July 2, 1993, as committed by USDOE-HQ, and if electrical system problems are resolved, the pump start date may be accelerated. On June 22, 1993, I met with tank farm representatives to resolve questions that arose from my review of the formal pumping plan. I was informed the USDOE-HQ approval was still anticipated and critical path maintenance work in the 241-BX tank farm was progressing as planned. Critical paths to pump start were identified as electrical and mechanical system repairs in the 241-BX tank farm and USDOE-HQ approval/concurrence on resolution of safety issues.

In my June 17, 1993, status letter to you, I explained my intentions for the formal pumping plan. I explained that if my review of the pumping plan concluded it is satisfactory, United States Department of Energy - Richland Operations (USDOE-RI)

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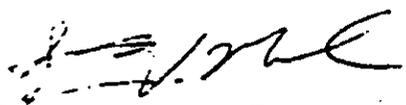
Messrs. Wagoner and Anderson
June 23, 1993
Page 2

and Westinghouse Hanford Company (WHC) will have satisfied the requirement of 40 CFR 265.196 (b) to demonstrate pumping of waste cannot occur within 24 hours. Once pumping occurs as planned, USDOE-RL and WHC will have satisfied the additional requirement of 40 CFR 265.196 (b) to pump at the earliest practicable time. My review of the formal pumping has resulted in the following two conclusions:

1. USDOE-RL and WHC satisfied the requirement of 40 CFR 265.196 (b) to demonstrate that pumping of waste to stop the leak from single shell tank 241-BX-111 cannot occur within 24 hours.
2. The pump start date will not be determined by the pumping plan, but rather it will be determined as events leading up to pumping unfold. USDOE-RL and WHC decided not to take advantage of the anticipated accelerated approval of safety resolution by USDOE-HQ to propose a more aggressive pump start than the originally planned August 1993 date. It is also my understanding that there are 241-BX tank farm equipment issues that could become "show stoppers" if they do not progress as planned, i.e., transfer line testing, salt well pump testing, etc. With these issues in mind, I propose we agree that the pump start date be accelerated from August 1993, as appropriate to take advantage of issues resolved ahead of schedule with the understanding there are still conditions that could delay pump start until well after August 1993 which would dictate further negotiation. If this proposal is unsatisfactory to USDOE-RL or WHC, please have your representatives contact me immediately to resolve your concerns.

Should you or your staff have questions, require clarification, or disagree with my proposal in conclusion two, please do not hesitate to call me at (509) 736-3023.

Sincerely,



Steven V. Moore, Dangerous Waste Compliance Inspector
Nuclear and Mixed Waste Management Program

SM:sr

cc: Mr. Gary Bracken, USDOE-RL
Mr. Alex Teimouri, USDOE-RL
Mr. Brad Erlandson, WHC
Mr. Harry Harmon, WHC



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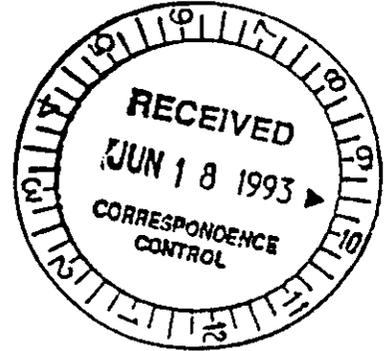
STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

7601 W. Clearwater, Suite 102 • Kennewick, Washington 99336 • (509) 546-2990

June 17, 1993

Mr. John Wagoner, Manager
U.S. Department of Energy
Richland Operations Office
P.O. Box 550
Richland, WA 99352

EPA/State ID Number:
(WA7890008967)



Mr. Tom Anderson, President
Westinghouse Hanford Company
P.O. Box 1970
Richland, WA 99352

Dear Messrs. Wagoner and Anderson:

Re: Status of May 24, 1993, Dangerous Waste Compliance Inspection
Voluntary Compliance Letter for Single Shell Tank 241-BX-111

Thank you for the assistance of United States Department of Energy (USDOE-RL) and Westinghouse Hanford Company (WHC) personnel during meetings held on June 1 and June 14, 1993, to discuss resolution of items requested in my May 24, 1993, voluntary compliance letter to both of you. My desire is to identify issues that are progressing towards resolution and to acknowledge changes to the conditions in my original compliance letter. If any of your representatives disagree with my assessment of current status they should feel free to voice their concerns. I attribute a large portion of our progress on BX-111 to a significantly improved communication between myself and your staffs. If this open communication continues and the inherent risks for both Ecology and USDOE-RL/WHC are endured, I feel eventual success will be achieved for most of the issues identified in my compliance letter. My current assessment for each item follows:

1. Within twenty-one (21) calendar days of receipt of this letter, USDOE-RL and WHC shall provide the formal action plan for interim stabilization of single shell tank 241-BX-111. This action plan shall include identification of responsible organizations and individuals for all approvals that must be obtained before beginning interim stabilization pumping of 241-BX-111. The action plan should support beginning of pumping of tank 241-BX-111 by July 31, 1993, and satisfy all applicable nuclear, occupational, or other safety regulations. Any condition, including safety

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Messrs. Wagoner and Anderson
June 17, 1993
Page 2

requirements, that will prevent beginning of pumping by July 31, 1993, must be identified by USDOE-RL to justify extension of the pumping start date. Ecology will accept or deny the action plan, in writing, as an acceptable corrective action program to minimize the threat to the environment from continued leakage from 241-BX-111 within ten (10) calendar days of receipt of the formal action plan.

Assessment USDOE-RL/WHC provided the formal action plan for pumping tank 241-BX-111 to me on June 14, 1993. Critical paths to pump start were identified as electrical system repairs in the 241-BX tank farm and United States Department of Energy (USDOE-HQ) approval/concurrence on resolution of safety issues. In my letter of May 24, 1993, a pump start date of July 31, 1993, was requested. The formal action plan calls for an August 1993 (no specified date) pumping start date. It was explained that if USDOE-HQ concurrence is obtained by July 2, 1993, as committed by USDOE-HQ, and if electrical system problems are resolved, the pump start date may be accelerated. I explained I would need the field verification work package that identified the specific work packages that were critical path items. Ms. Cindy Smith (WHC) will coordinate getting the work package list to me. I intend to review and respond to the proposed pumping plan within ten calendar days. If my review of the pumping plan concludes it is satisfactory, USDOE-RL and WHC will have satisfied the requirement of 40 CFR 265.196 (b) to demonstrate pumping of waste cannot occur within 24 hours. Once pumping occurs as planned, USDOE-RL and WHC will have satisfied the additional requirement to pump at the earliest practicable time. A continuing concern is that administrative review of safety concern resolution by USDOE-HQ takes longer than both resolution document preparation and physical preparations to pump.

2. Within thirty (30) days of receipt of this compliance letter, US DOE-RL and WHC shall perform an assessment of tank monitoring and emergency response capabilities at all Hanford tank farms and provide a report of the assessment to Ecology. Inability or failure to comply with the interim status facility requirements for tank monitoring, leak detection, or removal of all waste from a leaking tank must be documented. Achievable monitoring, leak identification, and response times will then be negotiated between USDOE-RL and Ecology within ninety (90) days to coincide with item 5 of this letter.

Assessment During our June 1, 1993, meeting, it was agreed "emergency response capabilities" would be modified to read "waste removal capabilities" in the first sentence of item 2. Additionally, it was discussed and I agree that item 2 should have been two items; the first dealing with tank monitoring capabilities and leak identification and the second dealing with waste removal capabilities and

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Messrs. Wagoner and Anderson
June 17, 1993
Page 3

achievable response times. Unless there is disagreement from USDOE-RL or WHC, I am submitting the following two action items, with my assessment of their status, to replace the original item 2:

- 2a. *Within thirty (30) days of receipt of this compliance letter, USDOE-RL and WHC shall perform an assessment of tank monitoring capabilities at all Hanford tank farms and provide a report of the assessment to Ecology. Inability or failure to comply with the interim status facility requirements for tank monitoring and leak detection in a leaking tank must be documented. Achievable monitoring and leak identification capabilities will then be negotiated between USDOE-RL and Ecology within ninety (90) days to coincide with item 5 of this letter.*

Assessment Failure to monitor single shell tanks daily and inability to identify/verify tank leaks within 24 hours is well documented by both Ecology and USDOE-RL/WHC. An individual tank by tank assessment is not required for this item. A summary of available information for each tank will be satisfactory to substitute for a new assessment. During the June 14, 1993, meeting I agreed to allow submittal of an Administrative Control Procedure as the USDOE-RL and WHC proposal for achievable monitoring and leak identification capabilities, due to me on July 9, 1993. In addition to the Administrative Control Procedure, interim operational safety requirements and an assessment and resolution proposal for monitoring of tanks with difficult monitoring problems is to be submitted on June 23, 1993. After July 9, 1993, we will continue to discuss the issue until resolution. My goal for this item is to put in place a justifiable and enforceable alternative to interim status monitoring requirements where applicable and to begin to operate within the interim status requirements wherever that can be achieved. I will continue to seek input from USDOE-RL, WHC, and Ecology staff on how best to achieve this goal.

Your staffs submitted, and I agree, that tank farm monitoring equipment upgrades should continue to be an issue for the Tank Waste Remediation System (TWRS)/Tri-Party Agreement (TPA) negotiations.

- 2b. *Within thirty (30) days of receipt of this compliance letter, USDOE-RL and WHC shall perform an assessment of waste removal capabilities at all Hanford tank farms and provide a report of the assessment to Ecology. Inability or failure to comply with the interim status facility requirements for leak response must be documented. Achievable waste removal times will then be negotiated between USDOE-RL and Ecology within ninety (90) days to coincide with item 5 of this letter.*

Messrs. Wagoner and Anderson
June 17, 1993
Page 4

Assessment As with item 2a, inability to remove waste to stop a leak within 24 hours of discovery is well documented by Ecology and USDOE-RL/WHC. However, requirements to begin pumping and what is the "earliest practicable time" to begin and complete pumping are not well documented. There is a long list of reasons tank pumping is delayed. My goal is to firmly identify and work through the delays so that unnecessary delays can be eliminated and necessary delays can be assured of receiving the attention they require for resolution. Once this goal is achieved, I believe we will be much closer to meeting USDOE-RL's apparent desire to resolve leaking tanks with Tri-Party Agreement interim milestones.

- 943094.0312
3. *Within thirty (30) days of receipt of this compliance letter, USDOE-RL and WHC shall submit a proposal to Ecology, for approval, that specifies notifications that will occur for tank farm potential emergencies and anomalies. Strict compliance to the reporting requirements of 40 CFR and WAC 173-303 must be used in developing this proposal along with an understanding of the unique circumstances and sometimes limited information provided by tank farm monitoring equipment. Upon approval by Ecology, the proposed notification plan shall become the enforceable standard for notification of all potential emergency and anomalous conditions at Hanford tank farms.*

Assessment As a result of recent milestone negotiations concerning the leak from tank 241-T-101, modifications were made to at least five tank farm operating procedures and an internal administrative procedure for "informal" external notifications was developed. These procedures were provided to me during the June 1, 1993, meeting. After reviewing the procedures I concluded they satisfied my request. During the June 14, 1993, meeting I informed your staffs the provided procedures satisfied my request and I considered this item complete. After six months I will revisit the issue if the actual notifications received over that time are not satisfactory.

Potential tank leaks typically are identified long before actual declaration of a leak is made. I understand that current tank monitoring information generally does not provide definitive leak identification within 24 hours. My desire is to be notified of a "potential" tank leak when USDOE-RL and WHC initiate studies to analyze preliminary indications so that when those studies conclude a tank is an assumed leaker it is not a surprise.

4. *Within thirty (30) days of receipt of this compliance letter, USDOE-RL shall modify the document clearance procedures currently used on Hanford. Records requested by regulatory personnel conducting inspections or investigations within their statutory*

Messrs. Wagoner and Anderson

June 17, 1993

Page 5

authority must be provided upon request by the regulatory personnel. Continued clearance of records containing national security, proprietary, or other sensitive information will remain acceptable with appropriate statutory and/or regulatory justification. Denial or delay in providing requested information to regulatory personnel after explanation of the regulatory authority and justification for the request must be eliminated by these modifications.

Assessment During the June 1, 1993, meeting I was told the response to this item would be similar to the response I received on a similar issue in my May 12, 1993, letter to both of you concerning a dangerous waste release from building 309E. During the June 14, 1993, meeting Mr. Paul Krupin (USDOE-RL) confirmed that the response to this item would state document clearance would continue to be as directed by USDOE orders, required by contractor contracts, and implemented by resultant contractor procedures. He explained that on-going efforts to develop "regulatory files" would resolve the issue. It is my understanding that the regulatory file concept is meant to resolve this issue and allow for eventual issuance of final status permits on Hanford. Concerns I have are that after two years of development, there are no interim status facilities with complete regulatory files and generator units are not being addressed. Additionally, the regulatory file concept involves enormous duplication of effort for recordkeeping that could be eliminated by granting regulators access to records they have authority to have and denying access to those we have no business seeing. I feel that we may be at an impasse on this issue and am seeking the advice of Ecology management and the Attorney General's office in advance of your "official" response to this item.

Before the June 14, 1993, meeting I had a telephone conversation with Mr. Alex Teimouri (USDOE-RL) during which he explained the twenty-one (21) day response from USDOE-RL to my compliance letter would be delayed because there was a delay in his office receiving my May 24, 1993, letter (I faxed a copy to Mr. Teimouri on May 25, 1993) which resulted in the response not being prepared on time. During the meeting Mr. Krupin insisted that a written USDOE-RL response was required in accordance with paragraph 29 of the Tri-Party Agreement. I explained to Mr. Krupin that if there was no dispute, I did not see a need for a twenty-one day response. He insisted the response was necessary to protect USDOE-RL from potential suits in the future and asked for a one day delay for the response. I explained that I was not sure I needed to "approve" this delay but it would be acceptable if I received the response by June 15, 1993.

5. Within ninety (90) days of receipt of this compliance letter, USDOE-RL and WHC must develop and implement contingency plans and emergency procedures, and

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Messrs. Wagoner and Anderson
June 17, 1993
Page 6

develop and put in place emergency equipment adequate to respond to a release of waste or other emergency circumstance from any double shell or single shell tank at Hanford. The contingency plans, emergency procedures, and equipment must meet the requirements of WAC 173-303 and 40 CFR 265 for responding to a release of dangerous waste to the environment or other emergency circumstances.

Assessment During the June 1, 1993, meeting your representatives asked for more consideration on my part for on-going negotiations with Ecology for Tri-Party Agreement milestones that address upgrades to tank farm pumping capabilities and emergency procedures that cannot be developed until equipment is in place. During the June 14, 1993, meeting, and after further consultation with Ecology TWRS staff, I concurred that resolution of large capitol expenditure tank farm wide improvements were better suited to the current TWRS/TPA negotiations. I also stated that after those negotiations were completed, I would revisit the issue if satisfactory agreements were not obtained. It was explained that tank leaks would be included in Building Emergency Plans as emergency conditions to meet the requirements of WAC 173-303-350 and 360. I will review the new Building Emergency Plans when they are submitted to me. Of particular interest to me will be the requirement in WAC 173-303-360 (1) for the Emergency coordinator to have the authority to commit the resources needed to carry out the contingency plan. The requirements of item 5 must be satisfactorily resolved within 90 days of your receipt of my May 24, 1993, letter.

Should you or your staff have questions, require clarification, or disagree with my assessment on any of the items in this status letter, please do not hesitate to call me at (509) 736-3023

Sincerely,


Steven V. Moore, Dangerous Waste Compliance Inspector
Nuclear and Mixed Waste Management Program

SM:mf
Enclosure

cc: Mr. Gary Bracken, USDOE-RL
Mr. Alex Teimouri, USDOE-RL
Mr. Harry Harmon, WHC
Mr. Brad Erlandson, WHC



9304201B

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

7601 W. Clearwater, Suite 102 • Kennewick, Washington 99116 • (509) 735-7000

May 24, 1993

CERTIFIED MAIL



Mr. John Wagoner, Manager
U.S. Department of Energy
Richland Operations Office
P.O. Box 550
Richland, WA 99352

EPA/State ID Number:
(WA7890008967)

Date and Time of Inspection(s):
April 2, 1993 0900-1200 hours
April 8, 1993 1100-1200 hours
April 15, 1993 1355-1630 hours

Mr. Tom Anderson, President
Westinghouse Hanford Company
P.O. Box 1970
Richland, WA 99352

Dear Messrs. Wagoner and Anderson:

Re: Dangerous Waste Compliance Inspection of Single Shell Tank 241-BX-111

Thank you for the assistance of United States Department of Energy (USDOE-RL) and Westinghouse Hanford Company (WHC) personnel during the inspection of Single Shell Tank 241-BX-111 (BX-111) in April 1993. As we discussed with facility representatives during the inspection, there were several areas of non-compliance with the Washington State Dangerous Waste Regulations (Chapter 173-303 WAC) associated with BX-111 which need to be resolved. These areas are as follows:

Summary of Violations

Facility inspection and review of documentation revealed that WHC, the 241-BX Tank Farm interim status storage facility operator, and USDOE, the 241-BX Tank Farm interim status storage facility owner, are not in compliance with the following sections of the Dangerous Waste Regulations Chapter 173-303 WAC and Chapter 40 of the Code of Federal Regulations:

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John Wagoner
Tom Anderson
Page 2
May 24, 1993

CLASS I VIOLATIONS

WAC 173-303-320 - General Inspection

- o failure to follow an inspection plan, maintain logs and perform remedial actions per subsections (1), (2), and (3)

40 CFR 265 Subpart J - Tank Systems
§265.195 - Inspection

- o failure to inspect data from monitoring and leak detection equipment daily per subparts (a)(2), and (a)(3)

WAC 173-303-145 - Spills and Discharges

- o failure to immediately report to Ecology indication of a release of radioactive mixed waste that poses a threat to the environment per subsection (2).

WAC 173-303-350 - Contingency Plan and Emergency Procedures

- o failure to amend the facility contingency plan to address changes in safety requirements for facility operation, specifically single shell tank waste removal in the event of a tank leak, per subsection (5)(c).

WAC 173-303-360 - Emergencies

- o failure to provide, at all times, an emergency coordinator with the authority to commit the resources needed to carry out the contingency plan per subsection (1)

WAC 173-303-390 - Facility Reporting

- o failure to immediately provide reports requested by Ecology during the investigation of the release of dangerous waste from BX-111 and response of the facilities owner and operator before, during, and after reporting the release to Ecology per subsection (3)

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John Wagoner
Tom Anderson
Page 4
May 24, 1993

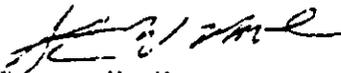
notifications that will occur for tank farm potential emergencies and anomalies. Strict compliance to the reporting requirements of 40 CFR and WAC 173-303 must be used in developing this proposal along with an understanding of the unique circumstances and sometimes limited information provided by tank farm monitoring equipment. Upon approval by Ecology, the proposed notification plan shall become the enforceable standard for notification of all potential emergency and anomalous conditions at Hanford tank farms.

4. Within thirty (30) days of receipt of this compliance letter, DOE-RL shall modify the document clearance procedures currently used on Hanford. Records requested by regulatory personnel conducting inspections or investigations within their statutory authority must be provided upon request by the regulatory personnel. Continued clearance of records containing national security, proprietary, or other sensitive information will remain acceptable with appropriate statutory and/or regulatory justification. Denial or delay in providing requested information to regulatory personnel after explanation of the regulatory authority and justification for the request must be eliminated by these modifications.

5. Within ninety (90) days of receipt of this compliance letter, WIC and DOE-RL must develop and implement contingency plans and emergency procedures, and develop and put in place emergency equipment adequate to respond to a release of waste or other emergency circumstance from any double shell or single shell tank at Hanford. The contingency plans, emergency procedures, and equipment must meet the requirements of WAC 173-303 and 40 CFR 175 for responding to a release of dangerous waste to the environment or other emergency circumstances.

Please do not hesitate to call me at (509) 736-3023 should you have questions or require clarification on any of the items in this compliance letter or the enclosed "Certificate of Completion." Please complete and submit the enclosed Certificate of Completion to me by September 7, 1993.

Sincerely,


Steven V. Moore
Dangerous Waste Compliance Inspector
Nuclear and Mixed Waste Management Program

SM:mf
Enclosure

cc Mr. Harry Harmon, WIC
Mr. Gary Bracken, PSDOE-RL

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Please complete and return this form to Steve Moore, Washington State Department of Ecology, 7601 W. Clearwater Avenue, Suite 102, Kennewick, Washington 99336, by September 7, 1993.

CERTIFICATE OF COMPLIANCE

As a legal representative of the U.S. Department of Energy, I certify to the best of my knowledge, the completion of items requested by the Washington State Department of Ecology on May 24, 1993, for the tank farm facilities located on the Hanford Reservation, 200 East and West Areas, Facility ID Number WA7890008967 as shown below.

COMPLIANCE STATUS

(A facility representative shall list the completion date and initial for each item.)

<u>Items of Non-compliance</u>	<u>Due Date</u>	<u>Date Completed</u>	<u>Initials</u>	<u>Comments</u>
Item 1	<u>6/16/93</u>	_____	_____	_____
Item 2	<u>6/23/93</u>	_____	_____	_____
Item 3	<u>6/23/93</u>	_____	_____	_____
Item 4	<u>6/23/93</u>	_____	_____	_____
Item 5	<u>8/22/93</u>	_____	_____	_____

Signature of DOE-RI Representative Date

DOE-RI



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

Mail Stop PV-11 • Olympia, Washington 98504-8711 • (206) 459-6000

May 12, 1993



Mr. Steven H. Wisness
Project Manager
U. S. Department of Energy
P. O. Box 550, A5-19
Richland, WA 99352-0550

Dear Mr. Wisness:

Please note that I am in receipt of your May 6, 1993, letter to George Hofer and I regarding single-shell tank 241-BX-111. For the reasons noted below, I do not believe that the approach you have recommended (utilization of additional work provisions of the Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement or TPA)) is appropriate. However, I encourage you to continue to require site operations staff to act, in order to initiate removal of remaining liquids within this tank no later than August 31, 1993.

In considering your request that the Department of Ecology (Ecology) approve a new interim milestone under the TPA (memorializing your suggested initial pumping date), I have a number of concerns and/or questions which the U. S. Department of Energy (USDOE) should respond to before we proceed. These are as follows:

1. I am concerned over USDOE's apparently suggested approach that each time a Hanford tank is discovered to be leaking (extremely hazardous waste), we simply establish a date in the future by which time USDOE will begin to take action. This piecemeal approach is neither adequate or acceptable, in that it does not adequately recognize or respond to the risks that these wastes pose to the environment and human health, or the need for a broad, integrated, and aggressive approach to halt additional, continuing, and future releases from Hanford tanks at its 200-Area tank farms.

I recommend that you work with USDOE's Tank Waste Remediation System staff in formulating such a program, one which has as its principle elements: An aggressive approach to waste retrieval and analysis of removed wastes, acquisition of sufficient

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MAY 19 1993

DOE-RL/CCO
193-TPA-160

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Mr. Steven H. Wisness
May 12, 1993
Page 2

additional tank space, upgrades to tank farm management and response systems and waste transfer facilities, resolution of tank safety issues, and barrier technology development and implementation.

2. I am also concerned that the suggested interim milestone lacks sufficient specificity in that it: (1) contains no indication of rate of retrieval or level of effort, (2) contains no indication that pumping will be continuous, or near continuous (thereby apparently allowing any number of work stoppages) and, (3) includes no provision under which liquids removed will be analyzed for content, and the results provided regulators.
3. I also note that even if we were to utilize the provisions of Article XXXIX (additional work) of the Tri-Party Agreement as the principle approach to USDOE's failing tanks, individual requests, such as your letter to Mr. Hofer and I, should address whether or not proposed additional work will adversely effect work schedules or require significant revisions to any approved schedule.

I would appreciate USDOE's review of these concerns before we proceed in this matter. You should also note that prior to agreement between Ecology and USDOE, our staff will be addressing conditions at tanks such as 241-BX-111 under our compliance program.

Sincerely,



Roger Stanley, Director
Tri-Party Agreement Implementation
Nuclear and Mixed Waste Management Program

RS:dr

cc: John Anttonen, USDOE
George Hofer, EPA
Paul Day, EPA
Dave Jansen, Ecology
Dave Nylander, Ecology

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APPENDIX C-5A

**RESPONSE TO DANGEROUS WASTE NONCOMPLIANCE INSPECTION
OF SINGLE-SHELL TANK 241-BX-111**

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Department of Energy

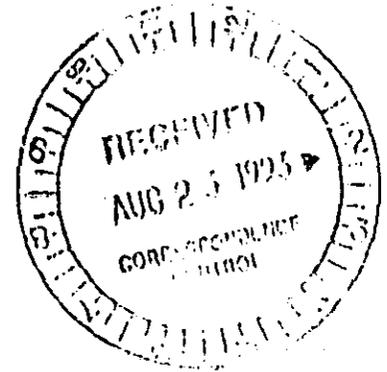
Richland Field Office

P.O. Box 550

Richland, Washington 99362

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AUG 20 1993



93-TOR-165

Mr. Steven V. Moore
Dangerous Waste Compliance Inspector
Nuclear and Mixed Waste Management Program
State of Washington
Department of Ecology
7601 West Clearwater Avenue
Suite 102
Kennewick, Washington 99336

Dear Mr. Moore

DANGEROUS WASTE COMPLIANCE INSPECTION OF SINGLE-SHELL TANK 241-BX-111

- References: (1) Letter, S. V. Moore, Ecology, to J. D. Wagoner, RL, and T. M. Anderson, WIC, same subject, dated May 24, 1993.
- (2) Letter S. V. Moore, Ecology, to J. D. Wagoner, RL, and T. M. Anderson, WIC, "Status of May 24, 1993 Dangerous Waste Compliance Inspection Voluntary Compliance Letter for Single-Shell Tank 241-BX-111," dated June 17, 1993.
- (3) Letter, R. E. Gerton, RL, to S. V. Moore, same subject, dated July 9, 1993.

In Reference 1, the State of Washington Department of Ecology (Ecology), cited a number of alleged non-compliances with the Washington Administrative Code Dangerous Waste Regulations (Chapter 173-303) and requested that five (5) items be completed to resolve these non-compliances. Since receipt of the letter, the U.S. Department of Energy, Richland Operations Office (RL) representatives have met with you several times to further identify the specific deliverables and due dates for the items. One of the five items (item 5) listed in Reference 1 addresses the need to develop and implement contingency plans and emergency procedures, and to develop and put in place emergency equipment adequate to respond to a release of waste or other emergency circumstances from any of the tanks at Hanford. This was to be completed by August 22, 1993.

Proposed Tri-Party Agreement (TPA) milestones that provide for preparation of emergency pumping procedures for the unstabilized single shell tanks (SST's) are currently being negotiated with Ecology. In addition, milestones have also been proposed for repairs and improvements to emergency pumping equipment and systems. RL believes that the TPA is the proper mechanism for addressing this issue for the SST's. In reference two, you concurred that the present Tri-party Agreement negotiations is the proper means to resolve large, tank farm wide improvements, such as these. RL believes that this issue can be resolved in the on-going TPA negotiations.

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Steven V. Moore

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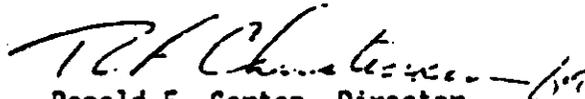
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SST tank leaks will be redefined as an emergency situation in tank farm Building Emergency Plans. Emergency Response Guides for specific accidents or incidents will also be prepared. Both the emergency plans and the emergency response guides will be revised to meet the requirements of WAC Sections 350 and 360. Procedures for all tank farms will be prepared. These procedures will then be made available for your review. It is believed the submission of the response guides and building emergency plans for your review will satisfy the commitment in item 5 of Reference 1. Consistent with our discussions, RL understands that an extension for completion of this work to October 31, 1993 was provided by you on the original completion date (August 22, 1993).

RL is awaiting your comments on the level monitoring administrative procedure submitted in reference three.

Should you have any questions, please contact Mr. Guy E. Bishop of my staff at 372-1856.

Sincerely,


Ronald E. Gerton, Director
Tank Waste Storage Division

cc
T. M. Anderson, WHC



Department of Energy

Richland Field Office

P.O. Box 550

Richland, Washington 99352

AUG 06 1993

93-TOB-152

9306348

Mr. Steven V. Moore
Dangerous Waste Compliance Inspector
Nuclear and Mixed Waste Management Program
State of Washington
Department of Ecology
7601 West Clearwater Avenue
Suite 102
Kennewick, Washington 99336

Dear Mr. Moore:

PUMPING OF ASSUMED LEAKING SINGLE-SHELL TANK 241-BX-111

Reference: Letter, R. E. Gerton, RL, to Steve V. Moore, Ecology, same subject, dated July 20, 1993.

The referenced letter advised you that the Department of Energy, Richland Operations Office (RL) intended to commence pumping of assumed leaking tank 241-BX-111 by August 9, 1993. However, RL also stated that this date was contingent on successful testing of this Tank's installed saltwell pump. Testing of this pump to-date has shown that a plug exists in the pump piping as shown in the enclosed drawings. The plug could be in the piping, or in the centrifugal pump atop the Tank, or in the jet assembly inside the Tank. Testing has revealed that a plug does not exist in the pumping jumper. This situation was discussed with you at a meeting held at Hanford on August 4, 1993.

The site contractor is attempting to free the plug. However, when this will occur is not definitely known, and as such, a date for start of pumping is also not known. Replacement of the jet pump assembly may be required. RL must inform you that the previous date for start of pumping this Tank will almost certainly be missed.

RL will advise you of a new start date for pumping this Tank, when it becomes available.

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Steven V. Moore

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9306348

Should you have any additional questions, please contact Mr. Guy E. Bishop of my staff on 372-1856.

Sincerely,

A handwritten signature in black ink, appearing to read "Ron Gerton" with "(for)" written in parentheses to the right.

Ronald E. Gerton, Director
Tank Waste Storage Division

Enclosure

cc: w/encl:
T. M. Anderson, WHC
G. J. Jackson, WHC
R. E. Raymond, WHC

9306348

Enclosure

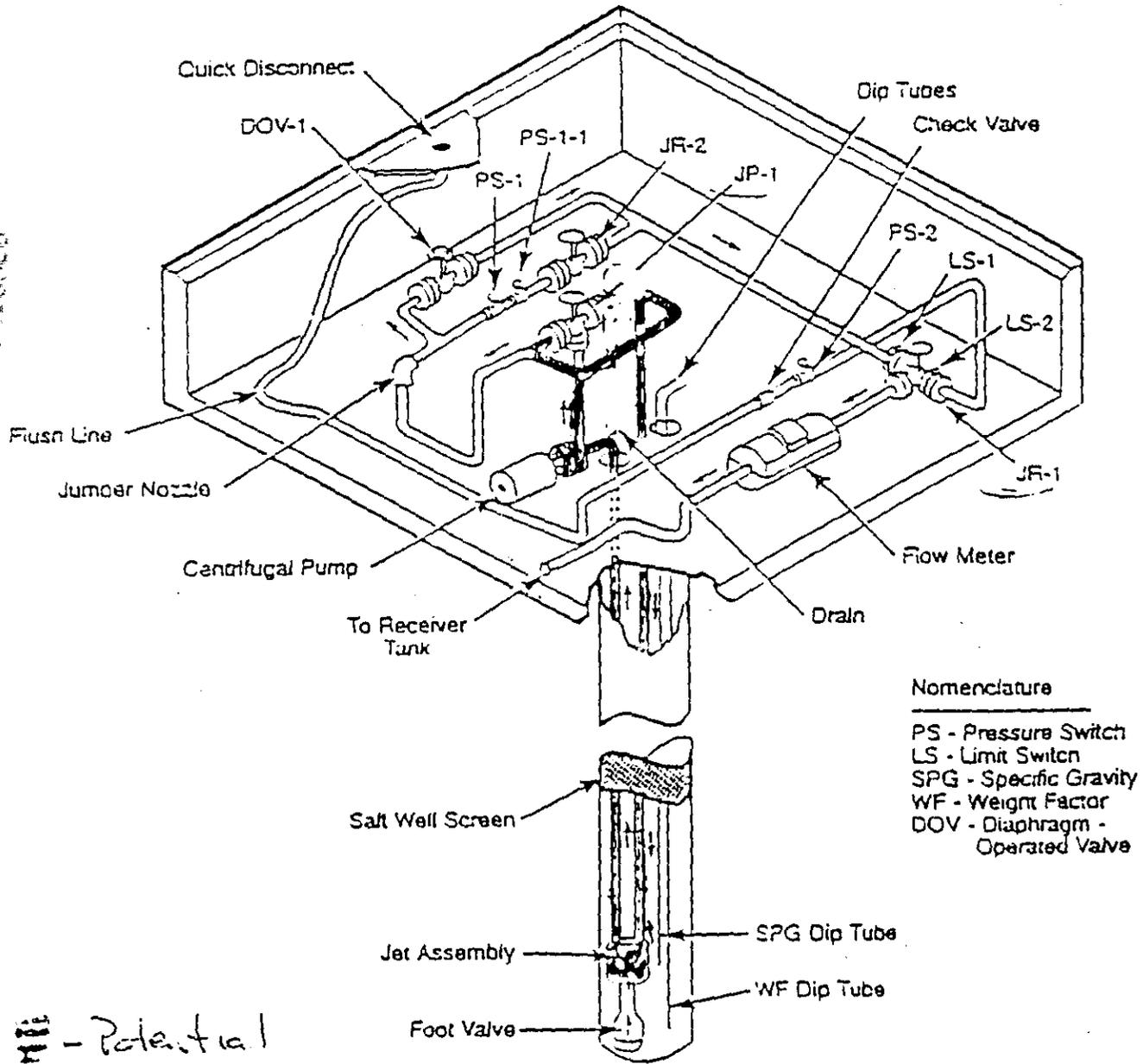
Saltwell Pump Drawings Showing Potential Pluggage
in Tank 241-8X-111

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Figure 2. Typical Saltwell Jet Pump Pic

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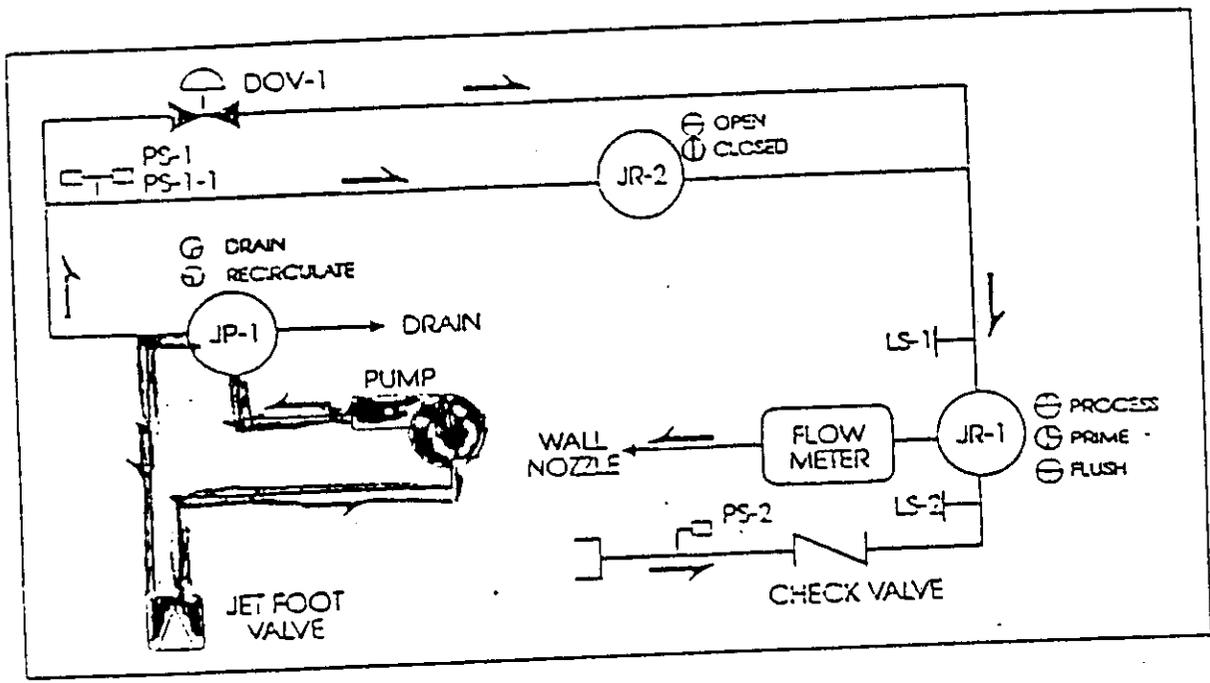


- Nomenclature**
- PS - Pressure Switch
 - LS - Limit Switch
 - SPG - Specific Gravity
 - WF - Weight Factor
 - DOV - Diaphragm - Operated Valve

III - Potential Plug

Typical Salt Well Jet Pump

Figure 3. Jet Pump Piping



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E - Potential Plug



Department of Energy

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

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JUL 20 1993

93-T08-136

Mr. Steven V. Moore
Dangerous Waste Compliance Inspector
7601 West Clearwater Avenue, Suite 102
Kennewick, Washington 99336



Dear Mr. Moore:

PUMPING OF ASSUMED LEAKING SINGLE-SHELL TANK 241-BX-111

Reference: Letter, S. V. Moore, Ecology, to J. D. Wagoner, RL, and T. M. Anderson, WHC, same subject, dated June 23, 1993.

The referenced letter requested the date scheduled for start of emergency pumping single-shell tank 241-BX-111 be accelerated from the previously scheduled date of August 30, 1993, if authorization was received for pumping these tanks earlier than was anticipated at the time.

All approvals required for pumping this tank, and companion tank 241-BX-110, have been received by the Department of Energy, Richland Operations Office (RL). The site contractor, the Westinghouse Hanford Company (WHC) has re-evaluated their pumping schedule in light of these approvals, and now anticipates that pumping of both tanks will begin August 9, 1993. This date is predicated on no further equipment failures, and successful testing of the saltwell pumps. Any other equipment or pump failures at this point will delay start of pumping. The transfer lines have been pressure tested and are intact.

If you have any questions, please contact Mr. Guy E. Bishop of my staff at 372-1856.

Sincerely,

Ronald E. Gerton, Director
Tank Waste Storage Division

cc: T. M. Anderson, WHC
G. J. Jackson, WHC
R. E. Raymond, WHC

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Department of Energy

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OFFICE OF TANK WASTE STORAGE

PO BOX 557

RICHLAND, WASHINGTON 99361

JUN 24 1993



93-TOB-198

President
Westinghouse Hanford Company
Richland, Washington

APPROVAL OF TESTING OF PUMPS IN TANK 241-BX-110 AND 241-BX-111

Reference: Letter, T. M. Anderson, WHC, to J. D. Wagoner, RL, "Letter of Applicability and Request for Authorization - Testing of Pumps in Tank 241-BX-110 and Tank 241-BX-111.

The referenced letter requested authorization to proceed with operational testing, contingent on completion of appropriate readiness reviews, of the installed saltwell pumps in single-shell tanks 241-BX-110 and BX-111.

Both tanks presently have an Unreviewed Safety Question (USQ) related to its ferrocyanide content. However, further studies have indicated that the amount of ferrocyanide in these tanks is negligible, and does not present a safety hazard. Resolution of the ferrocyanide USQ on both tanks is pending. The safety evaluation, enclosed with the referenced letter, shows that this activity will not involve the ferrocyanide USQ for either tank. Approval of this safety evaluation by the Department of Energy, Richland Operations Office (RL) is therefore not required. RL views this activity as maintenance activity, similar in scope and intent to other maintenance activities presently conducted on other ferrocyanide tanks. The testing of the pumps in both tanks may proceed as soon as the Westinghouse Hanford Company (WHC) determines that appropriate safety measures have been satisfied.

Both tanks also presently have an USQ related to possible criticality if the tank contents. However, a JCO has been approved for the criticality issue, and testing of the pumps is permissible under Allowed operation #6 of this JCO.

Should you have any additional questions, please contact Mr. Guy E. Bishop of my staff on 372-1856.

Sincerely,

Guy E. Bishop

for R. E. Gerton, Director
Office of Tank Waste Storage

- cc:
- R. E. Raymond, WHC
- M. A. Payne, WHC
- D. G. Hamrick, WHC

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Department of Energy

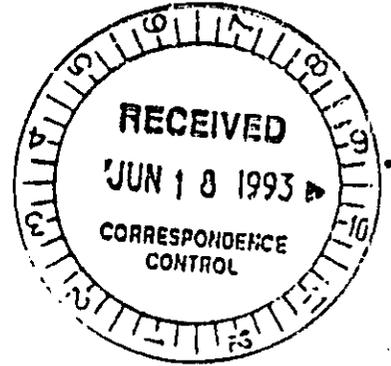
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Richland Field Office

P.O. Box 550

Richland, Washington 99352

JUN 15 1993



93-TOB-194

Mr. Steven V. Moore
Dangerous Waste Compliance Inspector
Nuclear and Mixed Waste Management Program
State of Washington
Department of Ecology
7601 West Clearwater Avenue
Suit 102
Kennewick, Washington 99336

Dear Mr. Moore:

DANGEROUS WASTE COMPLIANCE INSPECTION OF SINGLE-SHELL TANK 241-BX-111

Reference: Letter, Steven V. Moore, Ecology, to John Wagoner, RL, and Tom Anderson, WHC, "Dangerous Waste Compliance Inspection of Single-Shell Tank 241-BX-111," dated May 24, 1993.

The Department of Energy, Richland Operations Office (DOE-RL) received the referenced letter on May 24, 1993. This letter identified alleged violations of the State of Washington Administrative Code (WAC) Dangerous Waste Regulations (Chapter 173-303) and recommended that certain items be completed to resolve these alleged violations.

DOE-RL appreciates the opportunity to have met with you on June 1, 1993, to discuss the referenced letter and the requested items. As discussed during a meeting with you on June 14, 1993, corrective actions for each item are presently in progress, or a resolution for each item has been prepared for your consideration. A response to each item is provided in Enclosure One. As discussed in Enclosure One, further discussions will be necessary to identify the specific deliverables and due dates for some of the items. DOE-RL looks forward to working closely with you to resolve these issues in a forthright and expeditious manner.

Item 1 of the referenced letter also contained a request that Westinghouse Hanford Company (WHC) and DOE-RL provide a formal action plan for the interim stabilization of 241-BX-111. The enclosed report has been prepared in response to this request. This plan was to be provided by June 14, 1993, (within 21 calendar days of receipt of the letter). A copy of the report was given to you at a meeting held at Hanford on June 14, 1993.

2800 1606146

Mr. Steven V. Moore

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JUN 15 1993

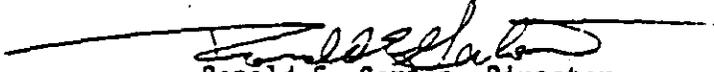
The reference also contained a request that the action plan support a July 31, 1993, start date for the pumping of SST 241-BX-111. The detailed schedule included in the action plan contains a start-up target date of August 30, 1993. This start date is constrained by two critical path activities. The two parallel critical paths are:

1. Preparation, review and approval of special safety evaluations and administrative controls associated with two Unresolved Safety Questions (USQs) on criticality and ferrocyanide, and
2. BX Farm field preparations including pressure testing of the transfer lines, receiver tank exhauster repair, and electrical system repairs.

DOE-RL and WHC are expediting actions required to start pumping this tank as soon as possible, while meeting all applicable nuclear, occupational health, and safety regulations.

Transmittal of the enclosed action plan completes item 1 of the reference.

Sincerely,


Ronald E. Gerton, Director
Office of Tank Waste Storage

Enclosures:

1. Response to Ecology Items from Letter of May 24, 1993.
2. Engineering Report ER3804, Rev. 0, "Pumping of Assumed Leaker Single-Shell Tank 241-BX-111, Kaiser Engineers Hanford, June, 1993.

cc: T. M. Anderson, WHC, w/o encl. /

9413094.0393
ER3804



Department of Energy

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

MAY 06 1993



93-08-074

Mr. George C. Hofer
Hanford Project Manager
U. S. Environmental Protection Agency
Region 10
1200 Sixth Avenue
Seattle, Washington 98101

Mr. Roger F. Stanley, Director
Tri-Party Agreement Implementation
State of Washington
Department of Ecology
P. O. Box 47600
Olympia, Washington 98504

Dear Messrs. Hofer and Stanley:

TRI-PARTY AGREEMENT MILESTONE FOR EMERGENCY PUMPING SINGLE-SHELL TANK
241-BX-111

Single-Shell Tank 241-BX-111 at the Hanford Site has been found to have leaked approximately one inch from its previous level. The U.S. Department of Energy, Richland Operations Office (RL) is proceeding to emergency pump this tank, as well as companion Tank 241-BX-110, which was previously stabilized, though a small amount of liquid remains in this tank which can be pumped out.

RL considers that this activity constitutes "additional work" in Article XXIX, paragraph 90 of the Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement (TPA)). A TPA interim milestone agreement was reached by RL and the State of Washington Department of Ecology (Ecology) leading to the successful effort to emergency pumping of Tank 241-T-101 recently. RL therefore effort to emergency pump Tank 241-BX-111 should also be contained within the frame work of the TPA. To that end, RL has prepared the enclosed TPA change form, number M-05-93-01, providing for commencement of emergency pumping (interim stabilization) of this tank by August 31, 1993. A draft of the proposed milestone was presented at the Unit Manager's Meeting on April 14, 1993. RL will make all reasonable efforts to resolve the issues associated with the safety questions which concern this tank, specifically its ferrocyanide content and criticality, to ensure that pumping of this tank and companion Tank BX-110 can be performed consistent with maintaining safe conditions around the tanks, and the preservation of human health and the environment. The recent incident in the former Soviet Union involving the explosion of a high-level waste tank demonstrates the need to perform all safety reviews in a deliberate, thorough manner.

Informal discussions concerning the establishment of these proposed milestones have been held at the Single Shell Tank Unit Manager Meeting on

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MAY 06 1993

Messrs. Hofer and Stanley

-2-

April 12, 1993.

The original change form is being forwarded to Ecology for disposition. Ecology is requested to sign the change request and to forward it to the U.S. Environmental Protection Agency (EPA) for approval. Upon approval of all three parties, this change request will be in effect, in accordance with the procedures outlined in the Tri-Party Agreement.

If you have any questions, contact me on (509) 376-6798. or Mr. Guy E. Bishop on (509) 372-1856.

Sincerely,

Steven H. Wisness
Hanford Project Manager

TWS:GEB

Enclosure

- cc w/o encl.
- B. Austin, WHC
- S. McKinney, Ecology
- T. Michelena, Ecology
- D. Nylander, Ecology
- D. Sherwood, EPA
- T. Tebb, Ecology

5/13/93 10:15



Enclosure

Tri-Party Agreement Change Form M-05-93-01

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Change Number M-05-93-01	Federal Facility Agreement and Consent Order Change Control Form Do not use blue ink. Type or print using black ink.	Date April 14, 1993
Originator	D. B. Pabst	Phone 376-9048
Class of Change Manager	[] I - Signatories	[X] II - Project Manager
Change Title Initiate Emergency Pumping of Assumed Re-Leaking Single-Shell Tank 241-BX-111		
Description/Justification of Change: Add new milestone: M-05-19 The USDOE shall complete all physical preparations for emergency pumping of Aug. 1993 single-shell tank BX-111, and shall initiate full scale removal of tank BX-111 liquids. On April 1, 1993, the USDOE identified that single-shell tank 241-BX-111 was assumed to be re-leaking. Following the precedence established by assumed leaking tank 241-T-101, a new milestone is established for the initiation of removal of pumpable liquids from tank BX-111.		
Impact of Change The implementation of this change form will add one (1) new interim milestone. This change will not affect any other major or interim milestone.		
Affected Documents Hanford Federal Facility Agreement and Consent Order Action Plan, Appendix D (Table D-1 and Figure D-1 Work Schedule).		

Approvals	___ Approved	___ Disapproved	Date
DOE			
EPA			
Ecology			

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APPENDIX C-6

**INSPECTION OF T PLANT'S UNKNOWN
BACKLOG WASTE MANAGEMENT PROGRAM**

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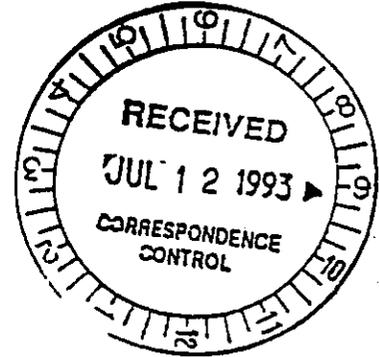
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STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

7601 W. Clearwater, Suite 102 • Kennewick, Washington 99336 • (509) 546-2990

July 9, 1993

CERTIFIED MAIL



Mr. John Wagoner, Manager
U.S. Department of Energy
Richland Operations Office
P.O. Box 550
Richland, Washington 99352

Mr. Tom Anderson, President
Westinghouse Hanford Company
P.O. Box 1970
Richland, Washington 99352

Dear Messrs. Wagoner and Anderson:

Re: Inspection of T-Plant's Unknown Backlog Waste Management Program

On June 25, 1993, I performed a follow-up inspection of the Backlog Waste Program; specifically, on T-Plant's management of unknown backlog waste containers. I want to ensure that both Department of Energy (DOE-RL) and Westinghouse Hanford Company (WHC) are aware of my observations from the inspection. This compliance letter is intended to provide prompt and open communication which may lead to voluntary correction of problems. Positive action in response to this letter may enable me to forgo recommending any additional enforcement action on this issue.

Four drums located outside the 221-T tunnel entrance were inspected and found to have violated sections of Chapter 173-303 Washington Administrative Code (WAC). A description of the violations, a discussion of the problem, and recommended corrective action follow:

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John Wagoner
Tom Anderson
July 9, 1993
Page 2

Violation

WAC 173-303-200 Accumulating dangerous waste on-site.

- o failure to ship waste off-site in 90 days or less to a designated facility per WAC 173-303-200(1)(a)

Based on field inspection and record review, the following three containers were not shipped to a designated facility within 90 days: BL-0047-00-UNK, BL-0056-00-UNK, BL-0144-00-UNK.

- o failure to indicate major risks of waste per WAC 173-303-200(1)(b) and WAC 173-303-630(3)

Based on field inspection, the following four containers were not marked with major risks: BL-0258-00-UNK, BL-0047-00-UNK, BL-0056-00-UNK, BL-0144-00-UNK.

- o failure to perform weekly inspections per WAC 173-303-200(1)(b) and WAC 173-303-630(6)

Based on field inspection and record review, the following four containers did not receive weekly inspections: BL-0258-00-UNK, BL-0047-00-UNK, BL-0056-00-UNK, BL-0144-00-UNK.

- o failure to indicate accumulation start date per WAC 173-303-200(1)(c)

Based on field inspection, the following containers did not have accumulation start dates indicated: BL-0258-00-UNK, BL-0047-00-UNK, BL-0056-00-UNK, BL-0144-00-UNK.

- o failure to label or mark "dangerous waste" or "hazardous waste" on each container per WAC 173-303-200(1)(d)

Based on field inspection, the following four containers were not marked "dangerous waste" or "hazardous waste": BL-0258-00-UNK, BL-0047-00-UNK, BL-0056-00-UNK, BL-0144-00-UNK.

9413094-0942

John Wagoner
Tom Anderson
July 9, 1993
Page 3

Discussion

My discussions with T-Plant personnel and my review of records concluded that three of the containers (BL-0047-00-UNK, BL-0056-00-UNK, BL-0144-00-UNK) were part of a repackaging effort on March 12, 1993. The containers currently contain soil, which T-Plant personnel told me is suspect radioactive mixed waste. The original contents of the three containers included other waste that was removed and repackaged in new containers with new package identification numbers (PINs): (WTFF-VT-001-03 and -13). The original PINs have since been tracked in association with the new containers. As a result, the original containers, and their mixed waste contents, did not remain incorporated into T-Plant's waste management program. WHC staff informed me that they became aware of this problem several months ago and went so far as to complete hazardous waste labels specifically for the three containers. However, as of this inspection, the labels had not been affixed.

Another container (BL-0258-00-UNK) was part of a repacking effort on June 13, 1993, and therefore does not exceed the 90-day requirement to ship waste to a designated facility. However, this container, like the three identified above, was repackaged and failed to be reincorporated into T-Plant's waste management program.

WHC staff added that the original containers were not used for accumulation of additional wastes, and acknowledged that the containers should have been placed in T-Plant's 90-day area and managed accordingly.

Corrective Action #1:

Within seven (7) days of receipt of this letter, DOE-RL and WHC shall move all four containers to T-Plant's temporary storage area while awaiting transport to a designated facility. Dangerous waste labels, with accurate accumulation dates, shall be affixed and major risks identified on each container. The containers shall begin to be inspected on a weekly basis. Ref: BL-0258-00-UNK, BL-0047-00-UNK, BL-0056-00-UNK, BL-0144-00-UNK.

Corrective Action #2:

Within thirty days (30) of receipt of this letter, DOE-RL and WHC shall transport the three drums that have exceed the 90-day on-site accumulation period to a designated facility. Ref: BL-0047-00-UNK, BL-0056-00-UNK, BL-0144-00-UNK.

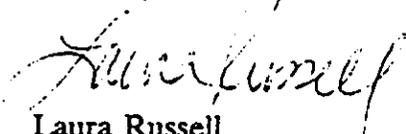
BL-0047-00-UNK

John Wagoner
Tom Anderson
July 9, 1993
Page.4

In order to correct these areas of non-compliance, please complete the corrective actions and return the enclosed "Certification of Compliance" by August 23, 1993. Failure to correct these areas of non-compliance may result in the issuance of an administrative order and/or penalty under RCW 70.105 (Hazardous Waste Management).

Should you have any questions or require clarification on any of the items in this compliance letter, please do not hesitate to call me at (509) 736-3024.

Sincerely,



Laura Russell
RCRA Compliance Inspector
Nuclear and Mixed Waste Management Program

LR:mf
Enclosure

cc: Dana Bryson, DOE
Dale McKenney, WHC
Jerry Faulk, WHC
Matt LaBarge, WHC

9413094.D044

Please complete and return this form to Laura Russell, Washington State Department of Ecology, 7601 West Clearwater #102, Kennewick, Washington 99336, by August 23, 1993.

CERTIFICATE OF COMPLIANCE

As a legal representative of the U.S. Department of Energy, I certify to the best of my knowledge, the completion of items requested by the Washington State Department of Ecology on July 9, 1993, following investigation of the Unknown Backlog Waste Management Program at T-Plant, located on the Hanford Reservation, 200 West Area, Facility ID Number WA7890008967 as shown below.

COMPLIANCE STATUS

(A facility representative shall list the completion date and initial for each item.)

Items of Non-Compliance	Due Date	Date Completed	Initials	Comments
Item 1	July 16, 1993	_____	_____	_____
Item 2	August 9, 1993	_____	_____	_____

Signature of DOE-RL Representative

Date

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APPENDIX C-6A

RESPONSE TO INSPECTION OF T PLANT'S UNKNOWN
BACKLOG WASTE MANAGEMENT PROGRAM

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Department of Energy

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

AUG 19 1993

93-LWG-118

9306349

Ms. Laura Russell
RCRA Compliance Inspector
State of Washington
Department of Ecology
7601 West Clearwater Avenue, Suite 102
Kennewick, Washington 99336

Dear Ms. Russell:

INSPECTION OF T PLANT'S UNKNOWN BACKLOG WASTE MANAGEMENT PROGRAM

On July 9, 1993 you forwarded a letter to the U.S. Department of Energy, Richland Operations Office (RL) and Westinghouse Hanford Company (WHC) regarding a compliance inspection of T Plant's Unknown Backlog Waste Management Program. In the compliance letter you requested completion of two corrective actions. A response to each of these actions follows:

Corrective Action #1

Within seven days of receipt of this letter, RL and WHC shall move all four containers to T Plant's temporary storage area while awaiting transport to a designated facility. Dangerous waste labels, with accurate accumulation dates, shall be affixed and major risks identified on each container. The containers shall begin to be inspected on a weekly basis.

Response:

On June 25, 1993 three of the containers (BL-0047-00-UNK, BL-0056-00-UNK, and BL-0144-00-UNK) were placed in the tunnel where the drums were labeled with dangerous waste labels, accumulation dates indicating the waste had been accumulated for greater than 90-days, and appropriate major risk labels. Drum BL-0258-00-UNK contained only plastic and asbestos materials. The contents of this drum were determined to be low-level waste and were placed in burial box WFFF-VT-001-68. T Plant's weekly surveillance schedule of dangerous waste management areas was revised to include the tunnel to ensure weekly inspections were conducted. The three drums containing mixed waste (BL-0047-00-UNK, BL-0056-00-UNK, and BL-0144-00-UNK) were placed on the 211-T less than 90-day accumulation pad on July 16, 1993.

9306349

AUG 19 1993

Ms. Laura Russell
93-LWB-118

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Corrective Action #2

Within thirty days of receipt of this letter, RL and WHC shall transport the three drums that have exceeded the 90-day on-site accumulation period to a designated facility. Ref: BL-0047-00-UNK, BL-0056-00-UNK, BL-0144-00-UNK.

Response:

Drums BL-0047-00-UNK, BL-0056-00-UNK, and BL-0144-00-UNK were repackaged into galvanized drums (WTFV-VT-001-49, WTFV-VT-001-50, and WTFV-VT-001-51, respectively) in the tunnel. They were shipped to the Central Waste Complex on July 29, 1993.

Should you have any questions regarding this transmittal, please call Mr. D. C. Bryson on 372-0738.

Sincerely,

Robert G. Holt
Robert G. Holt, Acting Program Manager
Office of Environmental Assurance,
Permits, and Policy
DOE Richland Operations Office

LWD:DCB

- cc: B. G. Erlandson, WHC
- W. H. Hamilton, Jr., WHC
- G. W. Jackson, WHC
- G. W. Faulk, WHC

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APPENDIX C-7

VIOLATION OF TRANSPORTER REQUIREMENTS — OCTOBER 1993

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STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

7601 W. Clearwater, Suite 102 • Kennewick, Washington 99336 • (509) 546-2990

October 15, 1993

Mr. John Wagoner, Manager
U.S. Department of Energy
P.O. Box 550
Richland, WA 99352

Mr. Tom Anderson, President
Westinghouse Hanford Company
P.O. Box 1970
Richland, WA 99352



Dear Messrs. Wagoner and Anderson:

Re: Violation of Transporter Requirements

On August 27, 1993, the Washington State Department of Ecology (Ecology) received notification from Westinghouse Hanford Company (WHC) that transport of a tanker carrying approximately 5000 gallons of tributyl phosphate (TBP) bound from the Plutonium-Uranium Extraction (PUREX) facility to Westinghouse Idaho Nuclear Company (WINCO) was halted at the last minute due to regulatory concerns raised by the State of Idaho. I have been working closely with the Department of Energy-Richland Operations (DOE) and WHC staff to find a suitable means to dispose of the waste. In the meantime, however, the tanker carrying dangerous waste is being stored at PUREX.

Summary of Violations

WAC 173-303-240 Requirements for transporters of dangerous waste.

Transporters may store manifested shipments of dangerous waste in containers meeting the requirements of WAC 173-303-190 (1), (2), and (3) for ten days or less.

Transporters may not accumulate or store manifested shipments of dangerous waste for more than ten days. . . . Transporters who do not comply with these conditions are subject to all applicable TSD [treatment, storage, and disposal] facility requirements.

- DOE/WHC failed to transport dangerous waste within the required ten days.

I realize that the tanker does not meet TSD facility requirements. I also understand that DOE/WHC does not desire to permit the tanker as an interim status TSD facility.

In order to correct the identified violation of WAC 173-303, please complete the following items within the time frame specified. Please be advised that failure to

9413094-0262

Mr. John Wagoner
Mr. Tom Anderson
October 15, 1993
Page 2

perform the requested actions may result in the issuance of an administrative order and/or penalty under RCW 70.105.095 (Violations-Orders-Penalty for non-compliance-Appeal).

This voluntary compliance letter is being issued pursuant to the authorities granted to Ecology by RCW 70.105 (Hazardous Waste Management).

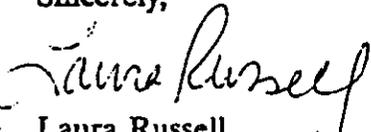
1. By November 15, 1993, DOE/WHC shall report to Ecology the waste management plan for the TBP tanker originally intended for transport from PUREX to WINCO. Options presented by DOE/WHC to Ecology to date include:
- transporting and disposing of the waste at an off-site facility. (Report date for transport and identify the receiving facility.)
 - petitioning Ecology for an exemption. (Report speculated date for exemption approval.)

Ecology may require transfer of the TBP to a waste storage tank while awaiting final disposal.

2. Until the waste within the tanker is either pumped into a waste storage tank or transported to a TSD facility, WHC shall perform and document, and DOE shall verify, daily inspections of the tanker for leakage. If any leakage is detected, Ecology must be notified immediately after appropriate corrective actions are taken.

Please do not hesitate to call me at (509) 736-3024 should you have questions or require clarification of any of the items in this compliance letter.

Sincerely,



Laura Russell
Dangerous Waste Compliance Inspector
Nuclear and Mixed Waste Management Program

LR:mf

cc: Allison Crowell, DOE
Mike Romsos, WHC
Eric Greager, WHC
Greg LaBaron, WHC
Mike Stephenson, WHC

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APPENDIX C-7A

RESPONSE TO VIOLATION OF TRANSPORTER REQUIREMENTS

The U.S. Department of Energy, Richland Operations Office formally
has not responded to this Notice of Noncompliance as of the
submitted date of this Notice of Intent.

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APPENDIX C-8

**TRANSFER OF WASTE FROM TANK F18 TO TANK F16
AT THE PLUTONIUM-URANIUM EXTRACTION (PUREX) FACILITY — OCTOBER 1993**

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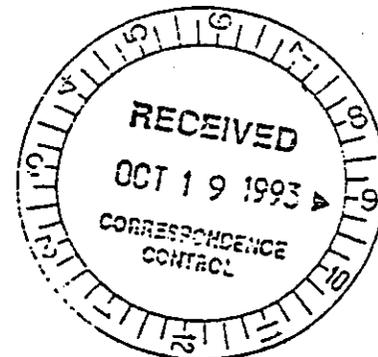
STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

7601 W. Clearwater, Suite 102 • Kennewick, Washington 99336 • (509) 546-2990

October 18, 1993

Mr. John Wagoner, Manager
U.S. Department of Energy
P.O. Box 550
Richland, WA 99352

Mr. Tom Anderson, President
Westinghouse Hanford Company
P.O. Box 1970
Richland, WA 99352



Dear Messrs. Wagoner and Anderson:

Re: Transfer of Waste from Tank F18 to Tank F16 at the Plutonium-Uranium
Extraction (PUREX) Facility

On August 20, 1993, Westinghouse Hanford Company (WHC) notified the Washington State Department of Ecology (Ecology) of contaminated water that had collected in the G Cell sump at PUREX as a result of leak test activities. The water was transferred to tank F18, a permitted storage/treatment tank, until F18 filled to capacity. In order to make room in F18 for the water remaining in the sump, a portion of the waste in F18 was transferred to F16, a permitted treatment tank. The water remaining in the sump has since been transferred to F18.

The initial compliance problem was U.S. Department of Energy (DOE)/WHC's failure to remove the contaminated water from secondary containment (G Cell sump) within 24 hours (WAC 173-303-630). However, resolving the secondary containment problem created a new problem, i.e., tank F16 is not a permitted waste storage tank and the waste transferred from F18 had been stored for greater than ninety days before being received in F16.

I have been working closely with DOE/WHC staff in an effort to facilitate a transfer of this waste from PUREX to Tank Farms. DOE/WHC has reported that transfer has been delayed due to the administrative hold on Tank Farms activities. Nevertheless, Ecology must take steps towards assuring compliance with the Washington State Dangerous Waste Regulations (WAC 173-303).

Mr. John Wagoner
Mr. Tom Anderson
October 18, 1993
Page 2

I have spoken with Mr. Bob Gustavson, WHC, to establish dates for completing the waste transfer and achieving compliance with State Regulations. Mr. Gustavson stated that transfer of the waste from F16 to Tank Farms would begin by October 22, 1993, and be completed by December 15, 1993. If the transfer is completed by December 15, 1993, there will be no subsequent enforcement action by Ecology.

Should you have questions or require clarification of any of the items in this letter, please do not hesitate to call me at (509) 736-3024

Sincerely,

Laura Russell

Laura Russell

Dangerous Waste Compliance Inspector
Nuclear and Mixed Waste Management Program

cc: Bob Holt, DOE
Larry Romine, DOE
Gene Senat, DOE
Gary Dunford, WHC
Eric Greager, WHC
Bob Gustavson, WHC
George Jackson, WHC
Greg LaBaron, WHC
Steve Szendre, WHC
Mike Stephenson, WHC

6320-1608145

APPENDIX C-8A

RESPONSE TO TRANSFER OF WASTE FROM TANK F18 TO TANK F16
AT THE PLUTONIUM-URANIUM EXTRACTION (PUREX) FACILITY

The U.S. Department of Energy, Richland Operations Office formally
has not responded to this Notice of Noncompliance as of the
submitted date of this Notice of Intent.

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APPENDIX C-9

**VIOLATION OF GENERATOR ACCUMULATION REQUIREMENTS
AT THE PLUTONIUM RECLAMATION FACILITY (PRF) — OCTOBER 1993**

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STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

7601 W. Clearwater, Suite 102 • Kennewick, Washington 99336 • (509) 546-2990

October 18, 1993



Mr. John Wagoner, Manager
U.S. Department of Energy
Richland Operations Office
P.O. Box 550
Richland, WA 99352

Mr. Tom Anderson, President
Westinghouse Hanford Company
P.O. Box 1970
Richland, WA 99352

Dear Messrs. Wagoner and Anderson:

Re: Violation of Generator Accumulation Requirements at the Plutonium Reclamation Facility (PRF)

Thank you for the assistance of United States Department of Energy (DOE) and Westinghouse Hanford Company (WHC) personnel during my inspection of PRF on September 24, 1993.

The Washington State Department of Ecology (Ecology) received notification from WHC on September 16, 1993, that four waste storage tanks at PRF (#TK-19, TK-39, TK-40, and WM-1) had exceeded the ninety day clock requirement for accumulating dangerous waste on-site (Chapter 173-303-200 Washington Administrative Code {WAC}). I believe the root cause of the violation to be a misunderstanding on the part of PRF Operations personnel regarding the applicability of generator waste management requirements.

In a September 30, 1993, letter from Mr. Robert Holt, DOE, to Mr. David Nylander, Ecology, regarding this occurrence, the following long-term corrective actions were identified to ensure that dangerous waste management efforts at PRF are followed in accordance with the Washington State Dangerous Waste Regulations:

- o Completion of a labeling effort to identify the tanks as hazardous waste accumulation tanks,

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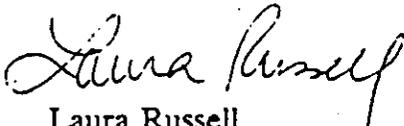
Mr. John Wagoner
Mr. Tom Anderson
October 18, 1993
Page 2

- o providing direction to PRF Operations regarding regulatory status of PRF waste tanks, and
- o implementing a tracking system to manage tanks TK-19, TK-39, TK-40, and WM-1 as 90-day accumulation tanks.

Completion of the identified corrective actions will sufficiently resolve my inspection concerns. I will perform a follow up inspection at a later date to assess completion of the corrective action items and current compliance with generator requirements.

Should you have any questions or require clarification on any of the items in this letter, please do not hesitate to call me at (509) 736-3024.

Sincerely,



Laura Russell
Dangerous Waste Compliance Inspector
Nuclear and Mixed Waste Management Program

cc: Ben Burton, DOE
Robert Holt, DOE
Jeff Bramson, WHC
Jim Brand, WHC
Glen Chronister, WHC
Brad Erlandson, WHC

591309108

APPENDIX C-9A

RESPONSE TO VIOLATION OF GENERATOR ACCUMULATION REQUIREMENTS
AT THE PLUTONIUM RECLAMATION FACILITY (PRF)

The U.S. Department of Energy, Richland Operations Office formally
has not responded to this Notice of Noncompliance as of the
submitted date of this Notice of Intent.

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APPENDIX C-10

RESULTS FROM OCTOBER 19, 1993, INSPECTION — OCTOBER 1993

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STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

7001 W. Clearwater, Suite 102 • Kennewick, Washington 99336 • (509) 546-2900

October 26, 1993



Mr. John Wagoner, Manager
U.S. Department of Energy
P.O. Box 550
Richland, WA 99352

Mr. Tom Anderson, President
Westinghouse Hanford Company
P.O. Box 1970
Richland, WA 99352

Dear Messrs. Wagoner and Anderson:

Re: Results from October 19, 1993, Inspection

Thank you for the assistance of United States Department of Energy (DOE), Westinghouse Hanford Company (WHC), and Kaiser Engineers Hanford (KEH) personnel during the Washington State Department of Ecology's (Ecology) October 19, 1993, inspection. The inspection was conducted to determine compliance with generator and interim status requirements under Chapter 173-303 Washington Administrative Code (WAC) for hazardous and/or mixed waste. The inspection was conducted in a shop sweep fashion, i.e., a surface inspection assessing basic compliance practices was performed at 14 facilities on the same day. Kennewick Ecology staff from RCRA Permitting and RCRA Water Quality joined RCRA Compliance Inspectors in the field as a cross training, informational exercise.

Attached is a brief report summarizing the details from each facility inspected. In three cases, corrective actions and follow up attention is needed to remedy violations and assure compliance with the Dangerous Waste Regulations.

In addition to the violations identified in the attached reports, another problem exists: requested documents are not being provided in a timely manner. Ecology requested copies of contingency plans and emergency procedures (WAC 173-303-350) from various facilities. Other plans and/or documents required by WAC 173-303 were also requested. Ecology explained the records were required to show compliance with WAC 173-303 and that failure to provide the records would result in a finding of denial of access. WHC

0280-1600146

Mr. John Wagoner
Mr. Tom Anderson
October 26, 1993
Page 2

assured Ecology inspectors records would be provided as soon as possible. To date, eight days have elapsed and records have not yet been received. Improvement in this area is required.

Ecology will assess compliance with administrative requirements (e.g., contingency plans, emergency procedures, operating records) once the records are received.

Please provide the requested records immediately. Also, please provide a status report to me on the corrective actions by November 15, 1993. I am sending copies of this cover letter and the individual facility summary report to each facility representative. Please do not hesitate to call me at (509) 736-3024 should you have questions or require clarification of any items in this letter.

Sincerely,

Laura Russell
RCRA Compliance Inspector

LR:sr
Enclosures

cc w/enclosures:

Bob Holt, DOE
Greg Henrie, WHC
George Jackson, WHC
Mike Stephenson, WHC
Steve Szendre, WHC

cc w/facility report:

Joe Egry, 183-H, 1713-H
Brad Schilperoort, 163-N
Jim Crockett, 1717-K
Candace Marple, 2715-EA
Mike Schliebe, 2703-E
Ken Strong, 226-B
Gary Carlson, 1164
Ed Lamm, 1177
Will Greenhalgh, 321
Everett Weakley, 333-E
Rick Brown, 384
Marty Martin, 222-S
Debbie Herman, 284-W

9413094.032

Facility/Area

1713-H, Satellite Storage Area (SSA), 100 N Area

Ecology Inspectors

Laura Russell, Lead RCRA Compliance Inspector
Bob Wilson, RCRA Compliance Inspector
Greta Davis, RCRA Water Quality Specialist
Jeanne Wallace, RCRA Permit Writer

Hanford Personnel

Ryan Johnson, Shipper, Environmental Restoration Operations (ERO)
Joe Egry, Consultant, ERO
Greg Henrie, WHC RCRA Compliance
Mike Stephenson, WHC RCRA Compliance

Description of Inspection

The 1713-H SSA consisted of three 55-gallon drums. The following information appeared on the drums:

- Drum #1 Diesel residue and absorbent from UST at 183-H
325 lbs., 9/13/93, M. Caldwell, 3-4736
- Drum #2 Diesel residue and absorbent from UST at 183-H
360 lbs., 9/13/93, M. Caldwell, 3-4736
- Drum #3 Aerosol cans, M. Caldwell, 3-4736

Ms. Russell asked if the diesel drums were regulated. WHC staff stated they did not know, but that Mike Caldwell was the person controlling the drums. (Mr. Caldwell was in a training class and not present during the inspection). Mr. Johnson called Mr. Caldwell and reported that Drum #1 and #2 contained diesel residue from an underground storage tank located under the reactor basin by 183-H pad. Mr. Johnson said Mr. Caldwell had no additional information on the diesel drums. Mr. Henrie agreed to find out more information on the diesel drums.

Ms. Russell gave the following guidance:

- 1) If Drum #1 and #2 are not regulated waste, they should be removed from the SSA.
- 2) Containers must be at or near the point of generation where wastes initially accumulate. If the waste was generated near the 183 basin, then the 183-H pad may have been a more appropriate accumulation area.
- 3) Drum #1 and #2 combined contained more than 55-gallons of waste. Only 55-gallons per waste stream can be accumulated in a SSA before requiring movement to 90-day accumulation area.

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- 4) The operator of the process generating the waste needs to have better knowledge of the waste being accumulated in a SSA (e.g., diesel drums).

Findings

WAC 173-303-200(2) Accumulating dangerous waste on-site.

- failure to place containers at or near the point of generation
- failure to maintain containers under the control of the operator of the process generating the waste
- failure to follow 90-day storage requirements once 55-gallons of waste had accumulated

Corrective Action

Corrective action is needed to resolve the above findings and bring the 90-day accumulation area into compliance with State Dangerous Waste regulations.

Ecology will perform a follow up inspection at a later date to assess compliance with the State Dangerous Waste Regulations, Chapter 173-303 Washington Administrative Code.

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Facility/Area

321, 90-day Accumulation Area, 300 Area

Ecology Inspectors

Steve Moore, Lead RCRA Compliance Inspector
Melodie Selby, RCRA Water Quality Supervisor
Alisa Huckaby, RCRA Permit Writer

Hanford Personnel

Steve Szendre, WHC RCRA Compliance
Bob Haggard, WHC
Will Greenhalgh, WHC

Description of Inspection

321 building is proceeding towards decommissioning. A SSA downstairs was cleaned out and waste material moved into the 90-day accumulation area upstairs, which was established in August 1993 in what appears to be an old office space.

The 321 building does not have an adequate program for maintaining a dangerous waste accumulation area. There is no training plan, inspection plan, contingency plan, or secondary containment. Two containers were labelled flammable liquids.

Preparations for shipping all waste stored at the 321 building have begun. Mr. Greenhalgh explained he was waiting for the shipping inspection and the waste would then be shipped.

Findings

WAC 173-303-200 Accumulating dangerous waste on-site.

- failure to provide secondary containment in waste accumulation area "installed" after September 31, 1986
- failure to comply with requirements of WAC 173-303-330 through 173-303-360 (personnel training, preparedness and prevention, contingency plan and emergency procedures, and emergencies) and WAC 173-303-320, (2)(a), and (b) (general inspection)

Action Items

Mr. Moore informed Mr. Greenhalgh and Mr. Szendre the programs necessary to bring the 321 building into compliance must either be developed or all the waste must be shipped to a TSD in accordance with the State Dangerous Waste Regulation. Mr. Greenhalgh felt the 90-day accumulation area would be emptied within two weeks. Corrective action is needed to resolve the above findings and bring the 90-day accumulation area into compliance with State Dangerous Waste regulations.

Ecology will perform a follow up inspection on November 4, 1993, to assess compliance status.

WAC 173-303-200

Facility/Area

1164, Hazardous Material Storage, 90-day Accumulation Area, Satellite Storage Area (SSA), 1100 Area

Ecology Inspectors

Steve Moore, Lead RCRA Compliance Inspector
Melodie Selby, RCRA Water Quality Supervisor
Alisa Huckaby, RCRA Permit Writer

Hanford Personnel

Steve Szendre, WHC RCRA Compliance
Lynn St. Georges, WHC
Bob Haggard, WHC
Gary Carlson, WHC
Joyce Demarest, WHC
Marty Huard, KEH

Description of Inspection

Inspected 90-day accumulation area and SSAs. No deficiencies noted.

Performed record review of Building Emergency Plan. No deficiencies noted.

Performed record review of containers stored on accumulation pads. Kaiser container on 90-day pad did not have records at 1164.

Findings

WAC 173-303-210 Generator recordkeeping
- failure to have container records at the facility

Corrective Action

Corrective action is needed to resolve the above finding and bring the 90-day accumulation area into compliance with State Dangerous Waste regulations.

Ecology will perform a follow up inspection at a later date to assess compliance with the State Dangerous Waste Regulations, Chapter 173-303 Washington Administrative Code.

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Facility/Area

222-S, interim status storage area, 200 West Area

Ecology Inspectors

Steve Moore, Lead RCRA Compliance Inspector
Bob Wilson, RCRA Compliance Inspector
Greta Davis, RCRA Water Quality Specialist
Jeanne Wallace, RCRA Permit Writer

Hanford Personnel

Steve Szendre, WHC RCRA Compliance
Marty Martin, WHC
Jay Warwick, WHC

Description of Inspection

Reviewed inspection records for July 1993. No deficiencies noted.

Reviewed Building Emergency Plan. No deficiencies noted.

Reviewed Operating record (shipping record) for two containers shipped from 222-S. No deficiencies noted.

Inspected #1 and #2 Conex boxes (storage facility). No deficiencies noted.

Discussed two issues from previous Ecology inspections of 222-S:

- 1) Moving container from TSD into 222-S building to receive waste from 90-day accumulation area.
- 2) Proper management of leaking light ballasts.

Findings

No findings noted.

Action Items

Ecology will provide responses to 222-S laboratory on two identified issues.

9413091-0376

Facility/Area

284-W Powerhouse, 90-day Accumulation Area, Satellite Storage Area (SSA), 200 West Area

Ecology Inspectors

Steve Moore, Lead RCRA Compliance Inspector
Bob Wilson, RCRA Compliance Inspector
Greta Davis, RCRA Water Quality Specialist
Jeanne Wallace, RCRA Permit Writer

Hanford Personnel

Steve Szendre, WHC RCRA Compliance
Debbie Herman, WHC
Albert Montelongo, WHC

Description of Inspection

Inspected 90-day accumulation area. No deficiencies noted.

Inspected SSA. No deficiencies noted. Ecology noticed that a solvent contaminated rag accumulation drum had been in use since 1989. Mr. Moore identified this waste stream as one that may be eliminated by use of a non-designated solvent. Ms. Herman explained that waste minimization efforts have eliminated nearly all dangerous waste streams from the 284 powerhouse, but the contaminate rag stream remained because the used rags contain metals and other contaminants picked up during use. Ecology offered to put Ms. Herman in contact with personnel from Ecology's Toxic Reduction program to see if they may offer assistance with pollution prevention efforts at the 284-W powerhouse.

Reviewed inspection records for July 1993. No deficiencies noted.

Findings

No findings noted.

Action Items

Ecology will provide Ms. Herman a response on pollution prevention issues.

2007-1603145

Facility/Area

333-E, 90-day Accumulation Area, 300 Area

Ecology Inspectors

Steve Moore, Lead RCRA Compliance Inspector

Melodie Selby, RCRA Water Quality Supervisor

Alisa Huckaby, RCRA Permit Writer

Hanford Personnel

Steve Szendre, WHC RCRA Compliance

Bob Haggard, WHC

Everett Weakley, WHC

Description of Inspection

Inspected 90-day accumulation area. No deficiencies noted.

Inspected 333-E building emergency plan. No deficiencies noted.

Requested copies of building emergency plan, inspection records for July 1993 and the 333-E inspection program. WHC person responsible for requested records was not available so Ecology requested records be sent.

Findings

No findings noted.

9413091.0379

Facility/Area

384 Powerhouse, 90-day Accumulation Area, 300 Area

Ecology Inspectors

Steve Moore, Lead RCRA Compliance Inspector
Melodie Selby, RCRA Water Quality Supervisor
Alisa Huckaby, RCRA Permit Writer

Hanford Personnel

Steve Szendre, WHC RCRA Compliance
Bob Haggard, WHC
Rick Brown, WHC

Description of Inspection

Inspected 90-day accumulation area. No deficiencies noted.

Performed record review of July 1993 inspection records. No deficiencies noted.

Performed preliminary record review of 90-day accumulation area contingency plan. A few requirements from WAC 173-303-350 and 173-303-360 were not clearly addressed by the contingency plan. Ecology offered to return to the 384 powerhouse after performing a detailed review of the contingency plan.

Findings

No findings noted.

6207160146

Facility/Area

226-B, 90-day Accumulation Area, 200 East Area

Ecology Inspectors

Laura Russell, Lead RCRA Compliance Inspector

Alisa Huckaby, RCRA Permit Writer

Melodie Selby, RCRA Water Quality Supervisor

Hanford Personnel

Ken Strong, Hazardous Materials Specialist

Greg Henrie, WHC RCRA Compliance

Mike Stephenson, WHC RCRA Compliance

Jim Beiler, WHC

Description of Inspection

Two 90-day accumulation areas were inspected. One area included nineteen 55-gallon drums resulting from a ten gallon HEDTA spill. Mr. Strong said that the material is awaiting designation. No deficiencies noted.

Findings

No findings noted.

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Facility/Area

1177, 90-day Accumulation Area, Satellite Storage Area (SSA), 1100 Area

Ecology Inspectors

Steve Moore, Lead RCRA Compliance Inspector

Melodie Selby, RCRA Water Quality Supervisor

Alisa Huckaby, RCRA Permit Writer

Hanford Personnel

Steve Szendre, WHC RCRA Compliance

Lynn St. George, WHC

Bob Haggard, WHC

Ed Lamm, WHC

Dennis Poor, WHC

Description of Inspection

Inspected 90-day accumulation areas and SSAs. No deficiencies noted.

Performed record review of Building Emergency Plan. No deficiencies noted.

Performed record review of containers stored on accumulation pads.

Performed review of training plan for 1177 90-day accumulation area. Requested records documenting personnel received required training. Training record access was denied to Ecology by WHC.

Findings

No findings noted.

Facility/Area

2715-EA, 90-day Accumulation Area, 200 East Area

Ecology Inspectors

Laura Russell, Lead RCRA Compliance Inspector
Alisa Huckaby, RCRA Permit Writer
Melodie Selby, RCRA Water Quality Supervisor

Hanford Personnel

Candace Marple, Manager, Maintenance Environmental Services North
Scott Sutton, Hazardous Materials Specialist
Greg Henrie, WHC RCRA Compliance
Mike Stephenson, WHC RCRA Compliance

Description of Inspection

Ecology inspected the 90-day pad consisting of four 55-gallon drums and one cardboard box. Mr. Sutton stated that the waste would soon be moved to a new 90-day accumulation building. No deficiencies noted with storage area or corresponding container records.

Findings

No findings noted.

2020-10-01-16

Facility/Area

2703-E, 90-day Accumulation Area, Satellite Storage Areas (SSA), 200 East Area

Ecology Inspectors

Laura Russell, Lead RCRA Compliance Inspector

Alisa Huckaby, RCRA Permit Writer

Melodie Selby, RCRA Water Quality Supervisor

Hanford Personnel

Mike Schliebe, Manager, Chemical Engineering Lab

Ron Clements, Hazardous Materials Coordinator

Don Gana, Assistant Hazardous Materials Coordinator

Jim Morrison, Action Manager, Environmental Services for Lab

Greg Henrie, WHC RCRA Compliance

Mike Stephenson, WHC RCRA Compliance

Description of Inspection

Three SSAs and a 90-day accumulation area were inspected. No deficiencies noted.

Findings

No findings noted.

9807160316

Facility/Area

163-N Pad, 90-day Accumulation Area, 100 N Area

Ecology Inspectors

Laura Russell, Lead RCRA Compliance Inspector

Bob Wilson, RCRA Compliance Inspector

Greta Davis, RCRA Water Quality Specialist

Jeanne Wallace, RCRA Permit Writer

Hanford Personnel

Brad Schilperoort, Manager, Waste Operations, 163-N Pad

Chris Lucas, Manager,

Hazardous and Radiological Waste Control for K-Basins

Greg Henrie, WHC RCRA Compliance

Mike Stephenson, WHC RCRA Compliance

Description of Inspection

Ecology inspected the hazardous and mixed waste sections of the 163-N Pad. The management team, Mr. Schilperoort and Mr. Lucas, were well informed of State dangerous waste management requirements. They are also incorporating pollution prevention activities into their program. The management team and the 163-N facility could be used as models for proper generator waste management.

Findings

No findings noted.

163-N PAD

Facility/Area

1717-K, Satellite Storage Area (SSA), 100 N Area

Ecology Inspectors

Laura Russell, Lead RCRA Compliance Inspector
Bob Wilson, RCRA Compliance Inspector
Greta Davis, RCRA Water Quality Specialist
Jeanne Wallace, RCRA Permit Writer

Hanford Personnel

Jim Crockett, Manager, Engineering Support
Bruce Kirk, Hazardous Waste Coordinator
Brad Schilperoort, Manager, Waste Operations, 163-N Pad
Chris Lucas, Manager,
Hazardous and Radiological Waste Control for K-Basins
Greg Henrie, WHC RCRA Compliance
Mike Stephenson, WHC RCRA Compliance

Description of Inspection

Three SSA areas were inspected.

SSA #1 consisted of an alkaline battery box. Ecology raised the question about the waste container being under the control of the operator of the process generating the waste. WHC personnel stated that Mr. Kenny Shollenberger was the operator in control of the process.

SSA #2 was an unlocked storage cabinet located outside the facility. It contained a drum of non-PCB ballasts and a drum of non-leaking PCB ballasts.

SSA #3 was an unlocked storage cabinet located outside the facility. It contained drums of regulated rags.

Findings

No findings noted.

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913091005

Facility/Area

183-H, 90-day Accumulation Area, 100 N Area

Ecology Inspectors

Laura Russell, Lead RCRA Compliance Inspector
Bob Wilson, RCRA Compliance Inspector
Greta Davis, RCRA Water Quality Specialist
Jeanne Wallace, RCRA Permit Writer

Hanford Personnel

Ryan Johnson, Shipper, Environmental Restoration Operations (ERO)
Joe Egry, Consultant, ERO
Greg Henrie, WHC RCRA Compliance
Mike Stephenson, WHC RCRA Compliance

Description of Inspection

Mr. Egry reported that no drums have been stored at the 183-H pad since December 1992. Prior to December 1992, he stated that waste was generated as a result of decontamination and decommissioning activities.

Record review revealed weekly inspections being performed even when the pad is not in use. Ms. Russell informed Mr. Egry and Mr. Johnson that State regulations require dangerous waste management inspections be performed when waste is accumulating on-site (WAC 173-303-200(1)(e)). The regulations do not require weekly inspections when the pad is not in use.

Findings

No findings noted.

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APPENDIX C-10A

RESPONSE TO RESULTS FROM OCTOBER 19, 1993, INSPECTION

The U.S. Department of Energy, Richland Operations Office formally has not responded to this Notice of Noncompliance as of the submitted date of this Notice of Intent.

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