0050550

NOTICE OF INTENT FOR EXPANSION UNDER INTERIM STATUS

HANFORD FACILITY IMMOBILIZED HIGH-LEVEL WASTE INTERIM STORAGE UNIT RICHLAND, WASHINGTON

APR 1999
RECEIVED
EDMC

U.S. DEPARTMENT OF ENERGY,
RICHLAND OPERATIONS OFFICE

JANUARY 1999

THIS PAGE INTENTIONALLY
LEFT BLANK

CONTENTS

ACRONYMS v

METRIC CONVERSION CHART vi

1.0 INTRODUCTION 1

2.0 FACILITY DESCRIPTION AND GENERAL PROVISIONS 1

2.1 LOCATION OF PROPOSED EXPANSION 2

2.2 DESCRIPTION OF UNIT TO BE EXPANDED 2

2.3 DESCRIPTION OF EXPANDED CAPACITY 2

2.4 COMPLIANCE WITH STATE ENVIRONMENTAL POLICY ACT 3

2.5 COMPLIANCE WITH SITING STANDARDS 3
2.5.1 Criteria for Elements of the Natural Environment 3
2.5.1.1 Earth 3
2.5.1.2 Air 3
2.5.1.3 Water 3
2.5.1.4 Plants and Animals 4
2.5.1.5 Precipitation 5
2.5.2 Criteria for Elements of the Built Environment 5
2.5.2.1 Adjacent Land Use 5
2.5.2.2 Special Land Uses 5
2.5.2.3 Residences and Public Gathering Places 5

3.0 TEN-YEAR COMPLIANCE HISTORY 6

4.0 JUSTIFICATION OF NEED 6

5.0 IMPACT ON OVERALL CAPACITY AT THE HANFORD FACILITY AND THE STATE OF WASHINGTON 6

6.0 REFERENCES 7

APPENDICES

A LOCATION MAPS ..... APP A-i

B STATE ENVIRONMENTAL POLICY ACT DOCUMENTATION ..... APP B-i

C FORMAL NOTICES OF VIOLATION AND/OR NOTICES OF PENALTY ..... APP C-i

FIGURES

Figure 1. Hanford Site. 8
Figure 2. Immobilized High-Level Waste Interim Storage Unit Site Plan. 9
Figure 3. Immobilized High-Level Waste Interim Storage Unit Layout. 10
Figure 4. Shielded Canister Transporter (typical). 11
Figure 5. Probable Maximum Flood of the Columbia River, Yakima River, and Cold Creek (adapted from DOE/EIS-0222). 12

ACRONYMS

CSB	canister storage building
DOE-RL	U.S. Department of Energy, Richland Operations Office
Ecology	Washington State Department of Ecology
HWVP	Hanford Waste Vitrification Plant
IHLW	immobilized high-level waste
NEPA	*National Environmental Policy Act of 1969*
NOI	notice of intent
RCRA	*Resource Conservation and Recovery Act of 1976*
SEPA	*State Environmental Policy Act of 1971*
TSD	treatment, storage, and/or disposal
WAC	Washington Administrative Code

METRIC CONVERSION CHART

The following conversion chart is provided to the reader as a tool to aid in conversion.

Into metric units			Out of metric units		
If you know	Multiply by	To get	If you know	Multiply by	To get
Length			**Length**		
Inches	25.40	Millimeters	Millimeters	0.0393	inches
Inches	2.54	Centimeters	Centimeters	0.393	inches
Feet	0.3048	Meters	Meters	3.2808	feet
Yards	0.914	Meters	Meters	1.09	yards
Miles	1.609	Kilometers	Kilometers	0.62	miles
Area			**Area**		
Square inches	6.4516	Square centimeters	Square centimeters	0.155	square inches
Square feet	0.092	square meters	Square meters	10.7639	square feet
Square yards	0.836	square meters	Square meters	1.20	square yards
Square miles	2.59	Square kilometers	Square kilometers	0.39	square miles
Acres	0.404	Hectares	Hectares	2.471	acres
Mass (weight)			**Mass (weight)**		
Ounces	28.35	Grams	Grams	0.0352	Ounces
Pounds	0.453	Kilograms	Kilograms	2.2046	Pounds
Short ton	0.907	metric ton	Metric ton	1.10	short ton
Volume			**Volume**		
Fluid ounces	29.57	Milliliters	Milliliters	0.03	fluid ounces
Quarts	0.95	Liters	Liters	1.057	Quarts
Gallons	3.79	Liters	Liters	0.26	Gallons
Cubic feet	0.03	cubic meters	Cubic meters	35.3147	cubic feet
Cubic yards	0.76	cubic meters	Cubic meters	1.308	cubic yards
Temperature			**Temperature**		
Fahrenheit	subtract 32 then multiply by 5/9ths	Celsius	Celsius	Multiply by 9/5ths, then add 32	Fahrenheit

Source: *Engineering Unit Conversions*, M. R. Lindeburg, PE., Second Ed., 1990, Professional Publications, Inc., Belmont, California.

1.0 INTRODUCTION

The Washington State Department of Ecology (Ecology) *Dangerous Waste Regulations*, Washington Administrative Code (WAC) 173-303-281, require that dangerous waste facility owners and/or operators submit a Notice of Intent (NOI) before submittal of a Part A, Form 3, permit application for proposed or expanded dangerous waste treatment, storage, and/or disposal (TSD) units on the Hanford Facility. The following information for this NOI is being filed with Ecology by the U.S. Department of Energy, Richland Operations Office (DOE-RL), the owner and operator.

This document is to serve notice of the intent to expand container storage on the Hanford Facility for storage of vitrified high-level mixed waste in the Immobilized High-Level Waste (IHLW) Interim Storage Unit. The IHLW Interim Storage Unit will use two of the three existing Canister Storage Building (CSB) vaults. The expansion will consist of deleting the container storage process designation from the Hanford Waste Vitrification Plant (HWVP) Part A, Form 3, permit application (Part A), and submitting a new Part A, Form 3, for container storage in two vaults at the IHLW Interim Storage Unit.

The expansion of container storage is being pursued to ensure compliance with storage requirements of WAC 173-303 and the *Resource Conservation and Recovery Act* (RCRA) *of 1976*, as amended.

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

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

Manager, Richland Operations Office: Mr. James C. Hall, Acting Manager

Richland Operations Office Contact: Mr. James E. Rasmussen

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

Telephone: (509) 376-5441.

2.0 FACILITY DESCRIPTION AND GENERAL PROVISIONS

The Hanford Facility is a single RCRA facility identified by the U.S. Environmental Protection Agency/State Identification Number WA7890008967 that consists of over 60 TSD units conducting dangerous waste management activities. These TSD units are included in the *Hanford Facility Dangerous Waste Part A Permit Application* (DOE-RL-88-21). The Hanford Facility, for the purposes of RCRA, is owned by the U.S. Government and operated by the DOE-RL (DOE/RL-91-28).

The following sections provide a description of the IHLW Interim Storage Unit, along with other general provisions specified in WAC 173-303-281.

2.1 LOCATION OF PROPOSED EXPANSION

The IHLW Interim Storage Unit will be located in the 200 East Area of the Hanford Facility, Benton County, Washington. Small-scale maps depicting the Hanford Facility and the location of the IHLW Interim Storage unit are provided in Figures 1 and 2. A large-scale map and a topographic map, which meet the 2.54-centimeter-equals-not-more-than-61-meters requirement, are provided in Appendix A and include the following:

- General Overview of Hanford Site (H-6-958)

- Topographic map of the IHLW Interim Storage Unit (H-13-000287), including the surrounding 305 meters.

2.2 DESCRIPTION OF UNIT TO BE EXPANDED

The primary mission of the IHLW Interim Storage Unit will be to store canisters of vitrified mixed IHLW from the treatment of Hanford Site tank waste. The vitrified mixed IHLW will be stored in two of the three vaults constructed for the CSB. The CSB originally was intended for storage of vitrified mixed IHLW for the HWVP Project. However the HWVP Project was cancelled during the design phase. Subsequently the CSB was designed and constructed under the Spent Nuclear Fuels project for storage of nonregulated spent nuclear fuel (Vault 1).

The CSB design contains three storage vaults with associated operation and support areas. The IHLW Interim Storage Unit will use vaults 2 and 3 located at the southern end of the CSB (Figure 3). Each vault will contain a storage tube matrix of 22 rows with 10 columns per row for a total of 220 carbon steel storage tubes and one row of six columns of overpack storage tubes (Figure 3). Major modifications to the CSB will include the addition of air intake structures and exhaust stacks for natural convective cooling of the vaults, installation of storage tubes and shield plugs, and a load-in/load-out annex at the southeast end of the CSB (Figure 3). The IHLW Interim Storage Unit will also use existing support structures and facilities at the CSB.

A tractor/trailer shielded-cask system will be used to transport the IHLW canisters and nonroutine HLW canisters from the private contractor to the CSB. A crane will transfer the canisters to a loadin/loadout pit from which the canisters will be transferred to a shielded canister transporter for placement into the storage tubes (Figure 4). The canisters with IHLW eventually will be transported to an approved national geologic repository for disposal. The cesium will be returned to the IHLW private contractor for future treatment and final disposition.

2.3 DESCRIPTION OF EXPANDED CAPACITY

The proposed expansion will eliminate the container storage process designation from the HWVP Part A, Form 3. A new Part A, Form 3, for the IHLW Interim Storage Unit with container storage process designation will be submitted. The approximate waste storage capacity for each vault is 915,000 liters, with a total capacity of 1,830,000 liters.

2.4 COMPLIANCE WITH STATE ENVIRONMENTAL POLICY ACT

SEPA documentation is provided in Appendix B.

2.5 COMPLIANCE WITH SITING STANDARDS

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

2.5.1 Criteria for Elements of the Natural Environment

The following addresses measures that will be in place at the IHLW Interim Storage Unit to provide protection of the natural environment. Each element of the criteria identified in WAC 173-303-282(6) is addressed.

2.5.1.1 Earth

This section addresses the potential for the release of waste into the environment because of structural damage resulting from conditions of the earth at the IHLW Interim Storage Unit.

2.5.1.1.1 Seismic Consideration. The IHLW Interim Storage Unit will be located in Zone 2B as identified in the *Uniform Building Code* (ICBO 1996). The design of the CSB for seismic risk was evaluated in accordance with the *General Design Criteria* (DOE Order 6430.1A).

No active faults, or evidence of a fault that has had displacement during Holocene times, have been found at the Hanford Site (DOE/RW-0164). The youngest faults recognized at the Hanford Site occur on Gable Mountain, over 4.5 kilometers north of the 200 East Area. These faults are of Quaternary age and are considered 'capable' by the Nuclear Regulatory Commission (NUREG-0892).

2.5.1.1.2 Subsidence. The IHLW Interim Storage Unit will be located in the 200 East Area of the Hanford Facility. This area of the Hanford Facility is not considered an area subject to subsidence (PNNL-6415).

2.5.1.1.3 Slope or Soil Instability. The IHLW Interim Storage Unit is not located in an area of slope or soil instability, or in an area affected by unstable slope or soil conditions (PNNL-6415).

2.5.1.2 Air

The IHLW Interim Storage Unit will not be an incineration unit. Discussion of measures taken to reduce air emissions resulting from incineration is not applicable.

2.5.1.3 Water

This section addresses the potential for contaminating water of the state in the event of a release of waste.

2.5.1.3.1 Surface Water. The following sections address considerations for the protection of surface water.

2.5.1.3.1.1 Flood, Seiche, and Tsunami Protection. Three sources of potential flooding of the area were considered: (1) the Columbia River, (2) the Yakima River, and (3) storm-induced run-off in ephemeral streams draining the Hanford Facility. No perennial streams occur in the central part of the Hanford Facility (Figure 5).

2.5.1.3.1.2 Perennial Surface Water Bodies. The IHLW Interim Storage Unit will be a nonland-based facility as defined in WAC 173-303-282(3)(i). WAC 173-303-282(6)(c)(i)(B)(I) requires nonland-based facilities be located at least 152 meters from any perennial water body. The IHLW Interim Storage Unit is greater than 7 kilometers from the Columbia River, the closest perennial water body.

2.5.1.3.1.3 Surface Water Supply. The IHLW Interim Storage Unit will not be located within an area designated as a watershed or within 152 meters of a surface water intake for domestic water.

2.5.1.3.2 Groundwater. The following sections address consideration for the protection of groundwater. The IHLW Storage Unit will be a nonland-based facility as defined by WAC 173-303-282(3); therefore, compliance with the contingent groundwater protection program is not required.

2.5.1.3.2.1 Depth to Groundwater. The IHLW Storage Unit will be located in the 200 East Area of the Hanford Facility. The depth to groundwater in the 200 East Area is over 79 meters.

2.5.1.3.2.2 Sole Source Aquifer. The IHLW Interim Storage Unit will not be located over an area designated as a 'sole source aquifer' under section 1424(e) of the *Safe Drinking Water Act of 1974*.

2.5.1.3.2.3 Groundwater Management Areas and Special Protection Areas. The proposed expansion of container storage is not expected to result in an increased potential for release of mixed waste to groundwater or to a special protection area.

2.5.1.3.2.4 Groundwater Intakes. The IHLW Interim Storage Unit will not be located within 152 meters of a groundwater intake for domestic water.

2.5.1.4 Plants and Animals

The following sections address consideration to reduce the potential for waste contaminating plant and animal habitat in the event of a release of waste. The IHLW Interim Storage Unit is over 152 meters from any of the following.

2.5.1.4.1 Wetlands. The IHLW Interim Storage Unit will not be located near any wetlands.

2.5.1.4.2 Designated Critical Habitat. The IHLW Interim Storage Unit will not be located in an area designated as critical habitat for federally listed threatened or endangered species as defined by the *Endangered Species Act of 1973*.

2.5.1.4.3 State Designated Habitat. The IHLW Interim Storage Unit will not be located in an area designated by the Washington State Department of Wildlife as habitat essential to the maintenance or recovery of any state listed threatened or endangered species.

2.5.1.4.4 Natural Area Preserves. The IHLW Interim Storage Unit will not be located in any natural area acquired or voluntarily registered or dedicated under Chapter 79.70 Revised Code of Washington.

2.5.1.4.5 Wildlife Refuge, Preserve, or Bald Eagle Protection Area. The IHLW Interim Storage Unit will not be located in a state or federally designated wildlife refuge, preserve, or bald eagle protection area.

2.5.1.5 Precipitation

The IHLW Interim Storage Unit will be a nonland-based facility and waste will be stored within an engineered structure that protects the waste from effects of precipitation. The IHLW Interim Storage Unit will not be located in an area having a mean annual precipitation level of greater than 254 centimeters (PNNL-6415).

2.5.2 Criteria for Elements of the Built Environment

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

2.5.2.1 Adjacent Land Use

This section addresses the setback criteria for adjacent land use.

Nonland-Based Facilities. The IHLW Interim Storage Unit will be located approximately 12 kilometers from the closest Hanford Facility property line.

2.5.2.2 Special Land Uses

This section addresses setback criteria for special land uses.

2.5.2.2.1 Wild and Scenic Rivers. The IHLW Interim Storage Unit will be located in the 200 East Area at least 7 kilometers from the Columbia River, which has been proposed as a Wild and Scenic River. The IHLW Storage Unit will not be within the viewshed of users of the Columbia River.

2.5.2.2.2 Parks, Recreation Areas, National Monuments. The IHLW Interim Storage Unit will be situated at least 152 meters from the nearest state or federally designated park, recreation area, or national monument.

2.5.2.2.3 Wilderness Area. The IHLW Interim Storage Unit will be located over 152 meters from any Wilderness Areas as defined by the *Wilderness Act of 1964*.

2.5.2.2.4 Farmland. The IHLW Interim Storage Unit will be over 152 meters from any commercial or private prime farmland.

2.5.2.3 Residences and Public Gathering Places

This section discusses factors affecting residences and public gathering places. The IHLW Interim Storage Unit will be located over 152 meters from residences and public gathering places.

2.5.2.3.1 Incineration. Incineration will not be a process used at the IHLW Interim Storage Unit. Therefore, this criterion is not applicable.

2.5.2.3.2 Land Use Compatibility. The Hanford Facility conforms with local land use zoning designation requirements.

2.5.2.3.3 Archeological Sites and Historic Sites. There are no known archaeological or Native American religious sites on or next to the IHLW Interim Storage Unit (HCRC #98-200-002).

3.0 TEN-YEAR COMPLIANCE HISTORY

Appendix C contains formal notices of violation and/or notices of penalty, in accordance with WAC 173-303-281, which can be obtained by contacting the following:

Public Access Room H6-08
Lockheed Martin Services, Inc.
P.O. Box 950
Richland, Washington 99352
(509) 372-3411.

4.0 JUSTIFICATION OF NEED

In May 1989, the U.S. Department of Energy along with Ecology and the U.S. Environmental Protection Agency formally entered into an agreement [Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement) (Ecology et al. 1996)] for the purpose of the Hanford Facility gaining compliance with federal, state, and local laws concerning the management of waste. The operation of IHLW Interim Storage Unit will support Tri-Party Agreement milestones by providing a means to store containerized mixed waste on the Hanford Facility.

The expansion of container storage is necessary to manage the containerized IHLW on the Hanford Facility. Using vaults 2 and 3 in the CSB was determined to be the most cost effective option based on an engineering analysis for interim storage of IHLW (WHC-SD-WM-SP 0011).

5.0 IMPACT ON OVERALL CAPACITY AT THE HANFORD FACILITY AND THE STATE OF WASHINGTON

The current capacity for the treating, storing, and/or disposing of mixed waste is limited within Washington State and the Hanford Facility. The IHLW Interim Storage Unit will provide the means for increased management of containerized mixed waste and will comply with WAC 173-303 regulations. This expansion for storage capability supports the current onsite mission of waste management and environmental restoration and remediation.

6.0 REFERENCES

DOE/EIS-0222, *Hanford Remedial Action and Comprehensive Land Use Plan*, Hanford Site, Richland, Washington.

DOE Order 6430.1A, *General Design Criteria.*

DOE/RL-88-21, *Hanford Facility Dangerous Waste Part A Permit Application*, Vols. 1-3, U.S. Department of Energy, Richland Operations Office, Richland, Washington, updated periodically.

DOE/RL-91-28, *Hanford Facility Dangerous Waste Permit Application, General Information Portion*, U.S. Department of Energy, Richland Operations Office, Richland, Washington, updated periodically.

DOE/RW-0164, *Site Characterization Plan*, U.S. Department of Energy, Office of Civilian Radioactive Waste Management, Hanford Site, Richland, Washington.

Ecology, EPA, and DOE, 1996, *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, updated periodically.

HCRC #98-200-002, "Cultural Resources Review of the TWRS Phase 1 Privatization Environmental Baseline - Probes", letter 10/09/97, N.A. Cadoret, Pacific Northwest National Laboratory to A.L. Schatz, Waste Management Federal Northwest, Richland, Washington.

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

ICBO, 1996, "Earthquake Regulations", *Uniform Building Code*, UBC Section 2312, International Conference of Building Officials, Whittier, California.

PNNL-6415, *Hanford Site National Environmental Policy Act (NEPA) Characterization*, Revision 8, Pacific Northwest National Laboratory, Richland, Washington.

WHC-SD-WM-SP-0011, Rev. 0, 1996, *Immobilized High Level Waste Interim Storage Path Forward*, Westinghouse Hanford Company, Richland, Washington.

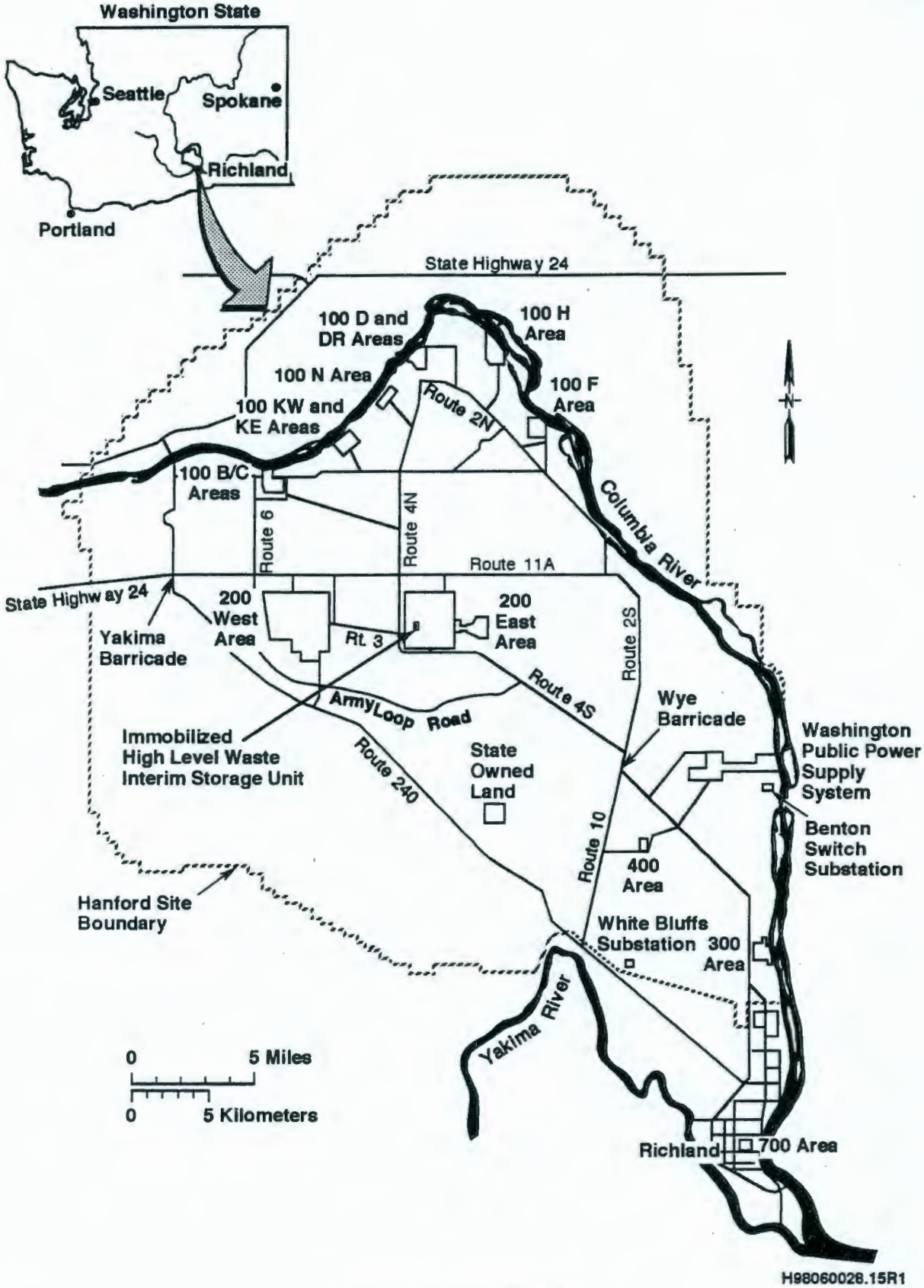


Figure 1. Hanford Site.

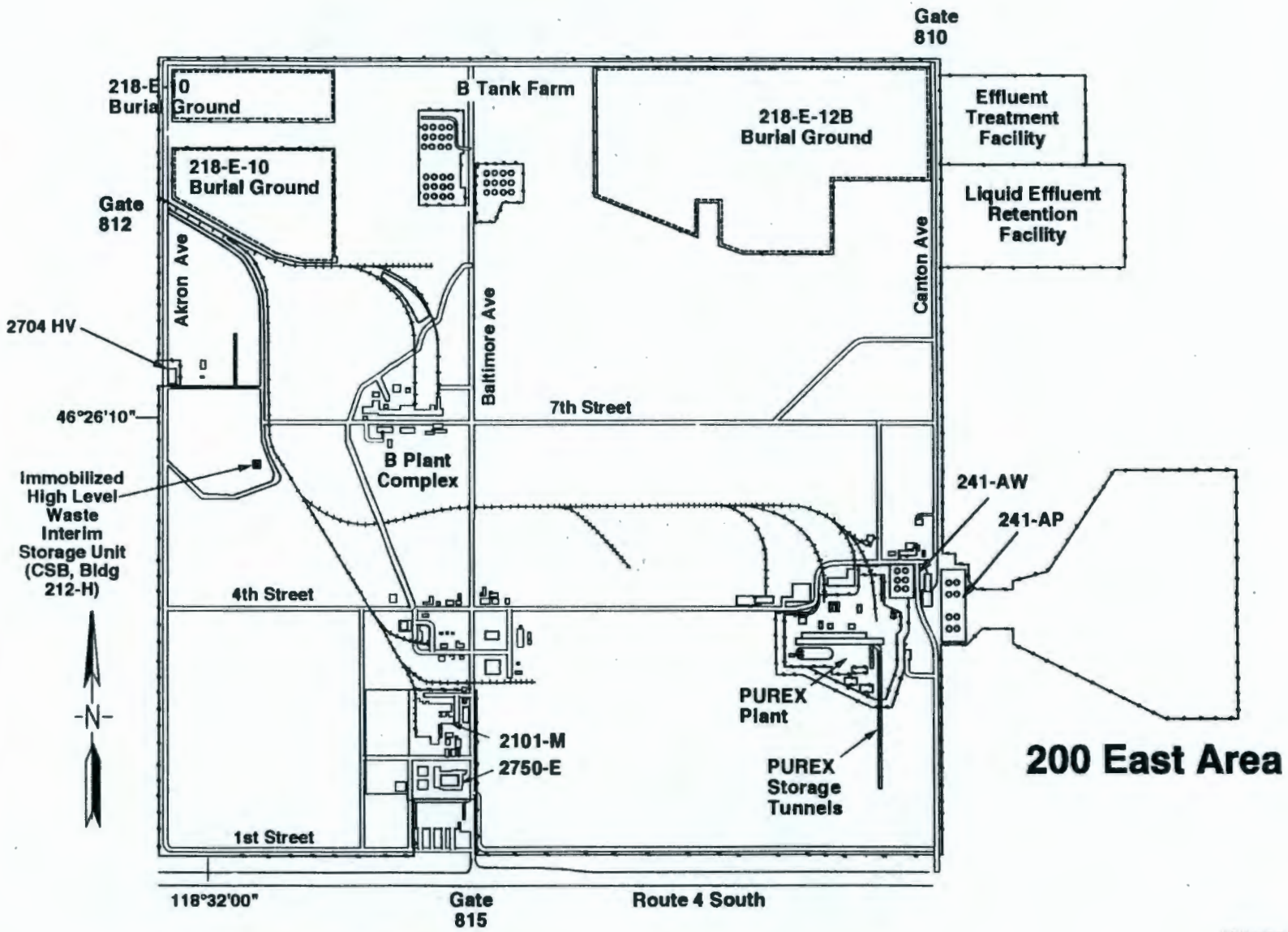


Figure 2. Immobilized High-Level Waste Interim Storage Unit Site Plan.

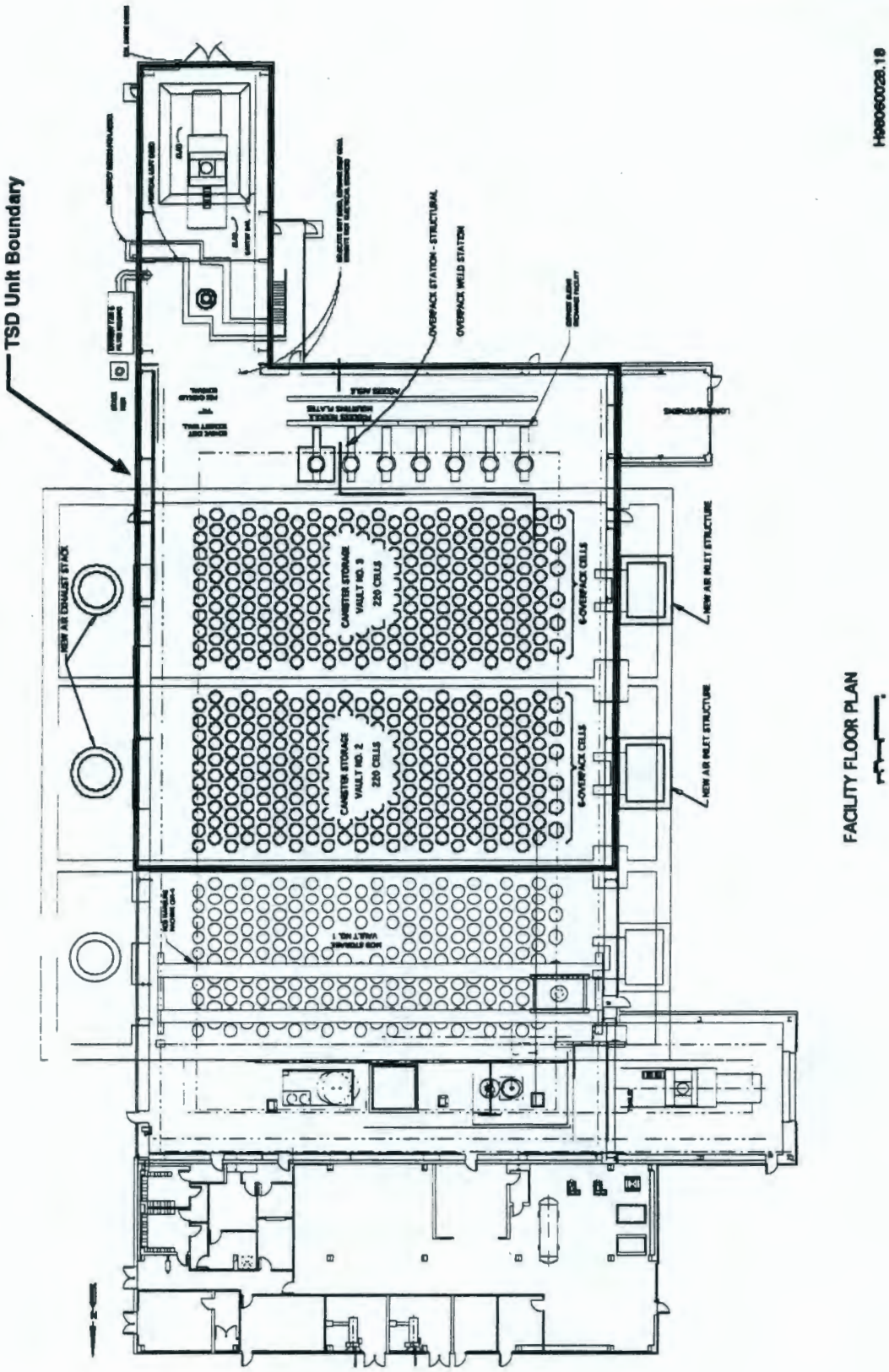


Figure 3. Immobilized High-Level Waste Interim Storage Unit Layout.

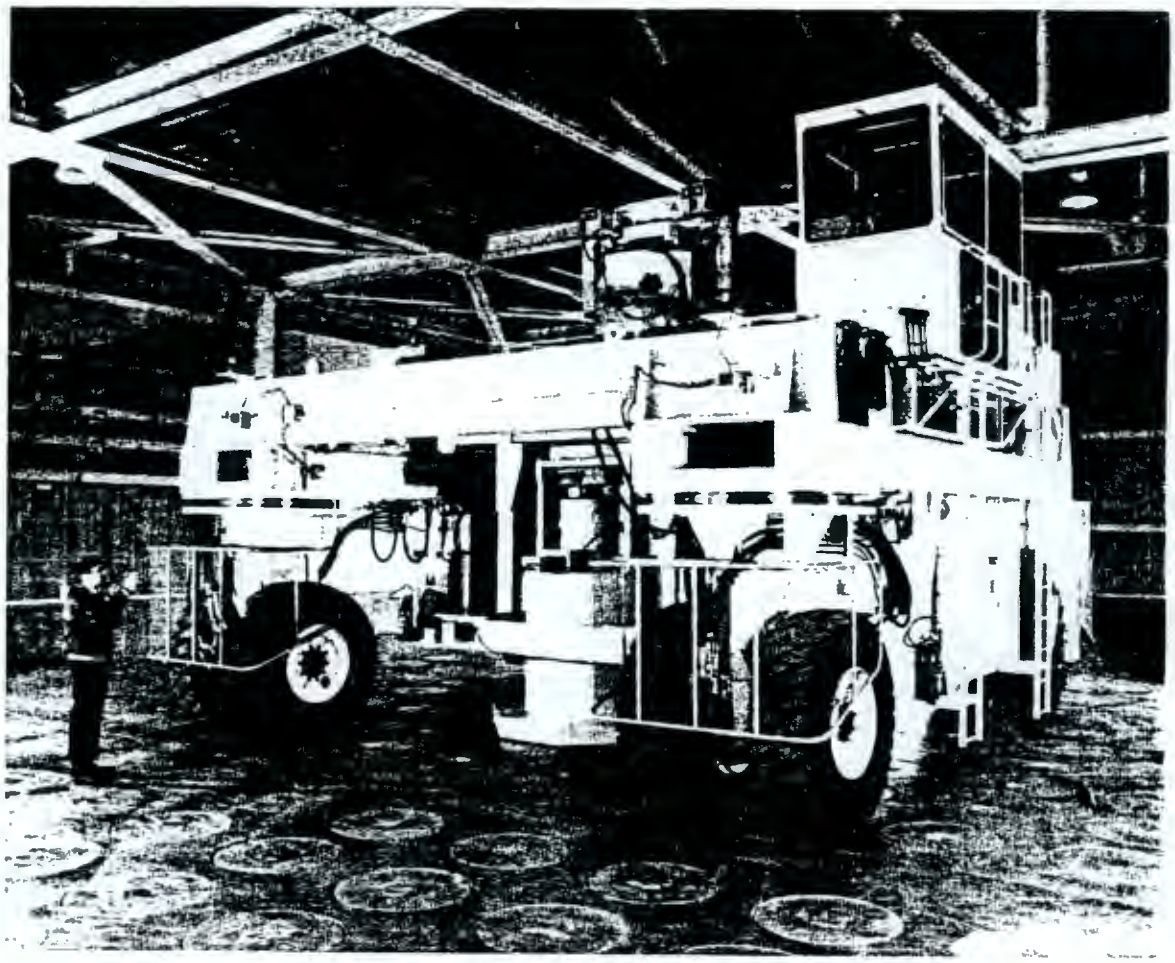


Figure 4. Shielded Canister Transporter (typical).

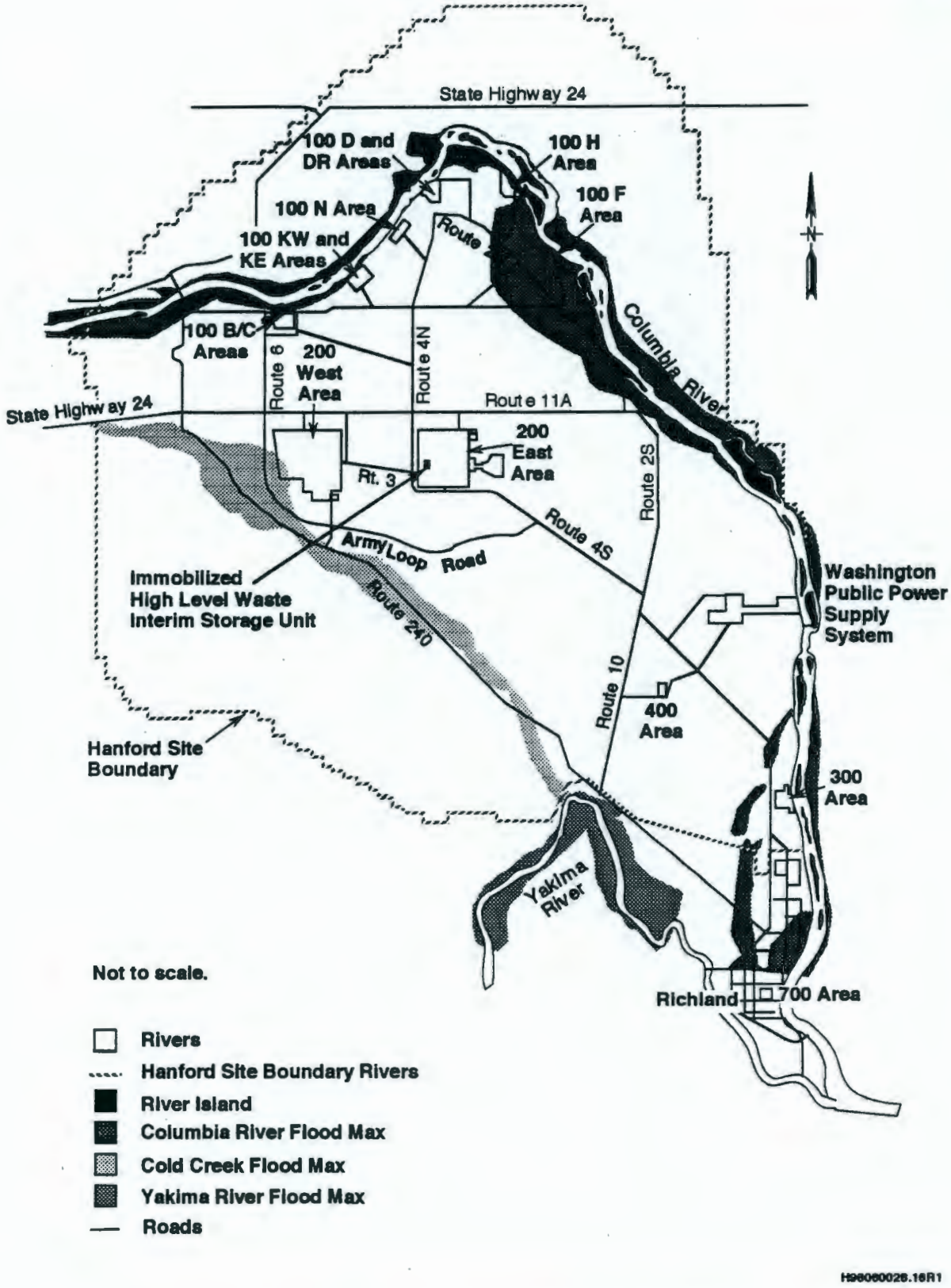


Figure 5. Probable Maximum Flood of the Columbia River, Yakima River, and Cold Creek adapted from DOE/EIS-0222).

APPENDICES

A LOCATION MAPS

B STATE ENVIRONMENTAL POLICY ACT DOCUMENTATION

C FORMAL NOTICES OF VIOLATION AND/OR NOTICES OF PENALTY

This page intentionally left blank.

APPENDIX A

LOCATION MAPS

APPENDIX A

CONTENTS

H-6-958 General Overview of Hanford Site.

H-13-000287 Immobilized High-Level Waste Interim Storage Unit Topographic Map.

APPENDIX B

STATE ENVIRONMENTAL POLICY ACT DOCUMENTATION

This page intentionally left blank.

Department of Energy
Richland Operations Office
P.O. Box 550
Richland, Washington 99352

98-EAP-472

SEP 01 1998

Mr. Mike Wilson, Program Manager
Nuclear Waste Program
State of Washington
Department of Ecology
P.O. Box 47600
Olympia, Washington 98504

Dear Mr. Wilson:

WASHINGTON STATE ENVIRONMENTAL POLICY ACT (SEPA) DOCUMENTATION FOR INTERIM STORAGE OF VITRIFIED HANFORD SITE IMMOBILIZED HIGH-LEVEL WASTE (IHLW) IN THE 200 EAST AREA CANISTER STORAGE BUILDING (CSB)

References: (1) "Supplement Analysis for the Tank Waste Remediation System," DOE/EIS-0189-SA2, dated May 1998.

(2) "Record of Decision for the Tank Waste Remediation System, Hanford Site, Richland, Washington," 62 FR 8693, dated February 26, 1997.

(3) "Tank Waste Remediation System, Hanford Site, Richland, Washington, Final Environmental Impact Statement," DOE/EIS-0189, dated August 1996.

The State of Washington Department of Ecology (Ecology) Dangerous Waste Regulations, Washington Administrative Code (WAC) 173-303-281, requires that dangerous waste facility owners and/or operators submit a Notice of Intent (NOI) before submittal of a Part A, Form 3, permit application for proposed or expanded dangerous waste treatment, storage, and/or disposal units on the Hanford Site. The proposal is for expansion of container storage at the Hanford Site to store vitrified mixed waste in the IHLW Interim Storage Unit. The IHLW Interim Storage Unit will use the existing CSB in the 200 East Area. Additional details regarding the unit are provided in the NOI.

Other environmental regulations, in concert with WAC requirements, also must be addressed. The National Environmental Policy Act (NEPA) requires Federal agencies to analyze the potential environmental impacts of their proposed actions to assist the agency in making informed decisions. A similar Washington State law, SEPA, requires state agencies, including Ecology, to analyze environmental impacts before making decisions that could impact the environment. Because NEPA and SEPA requirements are similar, the U.S. Department of Energy (DOE) and Ecology co-prepared the Tank Waste Remediation System (TWRS), Hanford Site, Richland, Washington, Final Environmental Impact Statement (EIS), Reference (3) to streamline the environmental review process. In the Record of Decision, Reference (2), DOE and Ecology determined that the high-level tank waste would be vitrified and sent to onsite

SEP 01 1998

interim storage, using the CSB. DOE would be the owner and operator of the interim storage facility. Current TWRS waste management planning prompted the DOE Richland Operations Office (RL) to prepare a supplement analysis concerning the TWRS EIS. The supplement includes discussion of potential environmental impacts for onsite interim storage of IHLW.

Based upon the TWRS EIS and supplement analysis, no additional environmental review, under NEPA, for the interim storage of IHLW is warranted at this time.

If you have any questions, please contact Carolyn Haass on (509) 372-2731 or Paul Dunigan on (509) 376-6667.

Sincerely,

James E. Rasmussen, Director
Environmental Assurance, Permits,
and Policy Division

MSD:CCH

cc: J. R. Wilkinson, CTUIR
Donna Powaukee, Nez Perce Tribe
Russell Jim, YIN
W. D. Adair, DESH
S. L. Dahl, Ecology
S. Alexander, Ecology
A. M. Umek, FDH
H. L. Boston, LMHC

APPENDIX C

FORMAL NOTICES OF VIOLATION AND/OR NOTICES OF PENALTY

This appendix only contains formal notices of violation and/or notices of penalty, in accordance with WAC 173-303-281.

HANFORD SITE
COMPLIANCE VIOLATIONS AND
RESPONSE SUMMARY

01/05/99

Date Received: 09/24/98
Agency: Ecology

SUMMARY:

Ecology issued Administrative Order 98NW-009 on September 24, 1998, requiring RL, FDH, and LMHC to comply with RCW 70.105, WAC 173-303, and by reference 40 CFR by taking certain prescribed actions. The prescribed actions pertain to documenting appropriate leak detection at each of the twenty-eight double shelled tanks at Hanford.

RESPONSE(S):

Following senior level discussions, the Attorney General of Washington issued a stay of Order 98NW-009. The stay was extended until January 29, 1999, to aid in the process of settlement of the issues in the appeal of that order to be filed by the appellants to the PCHB.

No formal decision from the PCHB has been received to date.

Date Received: 07/23/98
Agency: Ecology

SUMMARY:

Ecology assessed a Penalty 98NW-007 against RL, FDH, and LMHC in the amount of $75,600 under the provisions of the RCW 70.105.080. RL, FDH, and LMHC failed to provide a leak detection system for double-shell tanks SY 101, 102, and 103 capable of detecting a leak from the primary or secondary structure of these tanks within 24 hours.

RESPONSE(S):

RL submitted an Application for relief of Penalty, 98NW-007, which was received by Ecology on August 7, 1998. After a review of the application, Ecology formally denied the application in writing on September 24, 1998. The denial allowed the petitioners to appeal to the PCHB within 30 days of receipt of denial. RL in turn appealed the denial to the PCHB on September 23, 1998.

No formal decision from the PCHB has been received to date.

Date Received: 07/10/98
Agency: WDOH

SUMMARY:

WDOH issued a NOV to DOE for violations of radioactive air emissions regulations at the 296-A-42 major emission unit. This violation involved the bypassing of required controls and the lack of any notification to the WDOH concerning the subsequent loss of integrity of the filtration system. With a potential to emit of over 3,000 mrem/year to the MEI, that failure could have resulted in a significant offsite impact.

RESPONSE(S):

Compliance Order #1 was met with the submittal of required documentation by RL letter on August 21, 1998. Compliance Orders #2 and #3 were met with the submittal of required documentation by RL letter on August 10, 1998.

No further response from Ecology has been received to date.

Date Received: 05/13/98
Agency: WDOH

SUMMARY:

WDOH issued a NOV under RCW 70.94.332 and WAC 246-247-100 for violation of radioactive air emissions regulations in the operation of the Plasma Arc Furnace in the 324 Building Waste Technology Engineering Laboratory, located in the 300 Area. The NOV also contained a Compliance Order consisting of three requirements.

RESPONSE(S):

Compliance Order, requirement #3 directed RL to notify WDOH of discrepancies between Hanford Site NOCs and actual or planned work. The due date for the required notification was 8-25-98. A report notifying WDOH of the required information was transmitted to WDOH on 8-20-98.

The report (dated 8-20-98) will be reviewed by WDOH to determine if revisions need to be made to Hanford Site NOCs. The due dates for any such revisions will be negotiated between RL and WDOH.

Date Received: 02/25/98
Agency: EPA

SUMMARY:

On February 25, 1998, EPA issued a NOV to DOE for violating requirements defined in the ERDF Record of Decision

RESPONSE(S):

BHI submitted revised calculations to WDOH showing the adequacy of the monitoring system for 50,000 square foot of exposed face. WDOH reviewed the calculations and have given verbal concurrence that the calculations can be used as basis for the adequacy of existing monitors for this revised operating mode. IDW management issues and changes in procedures and operating practices were revised to address the IDW management issues raised by Ecology in the NOV.

No formal notice of closure has been received from the EPA.

Date Received: 09/16/97
Agency: Ecology

SUMMARY:

In 1997, a chemical mixture stored for over a year in a tank located in the Plutonium Reclamation Facility underwent a spontaneous reaction rapidly generating sufficient pressure to violently rupture the tank. After concluding its investigation of the incident, Ecology served DOE's Richland Operations Office a NOP and NOC demanding payment of the sum of $110,000 for, inter alia, alleged violation of regulations prohibiting improper storage of hazardous waste. Corrective measures (CM) described at the end of the NOC letter were developed after the meetings regarding on-going actions being performed by DOE and its contractors.

RESPONSE(S):

In January 1998, Ecology performed a compliance inspection at PFP. It is DOE's understanding that Ecology intends to incorporate further discussion regarding the disposition of the items subject to CM 6 into closure actions to be taken following issuance of the Ecology compliance inspection report. While DOE has been waiting issuance of Ecology's compliance inspection report, DOE pursued field activities to disposition the remaining items. No report has been received concerning this Ecology inspection

On February 2, 1998, DOE transmitted a letter to Ecology identifying the remaining CMs and requested an extension date of July 1, 1998. On March 16, 1998, DOE sent a letter to Ecology supplying a status related to the disposition of the items identified in CM 4. This letter also transmitted the emergency preparedness documentation being submitted for the closure of CM 1 and 2 for Ecology's review and comment.

On April 15, 1998, DOE submitted final documentation to close out CM 1 and 2 that will become effective on July 1, 1998.

DOE responded to the NOP by filing with Ecology an Application for Relief from Penalty, which Ecology denied on January 7, 1999. DOE has 30 days from January 7, 1999 to appeal to the Pollution Control Hearings Board.

Date Received: 11/07/96
Agency: Ecology

SUMMARY:

On September 27, 1996, Ecology conducted an investigation of the 222-S Laboratory regarding a September 13, 1996 incident. Chemicals were mixed resulting in a breach of the container and a release of hazardous materials. During the investigation Ecology expressed concerns with the management of satellite accumulation areas (SAAs) and verification of process waste generated outside of the 222-S Laboratory. Formal correspondence was sent to DOE, FDH, and RFSH from Ecology stating that Ecology was not pursuing formal enforcement. Six violations and one concern were identified.

RESPONSE(S):

DOE issued a formal response to Ecology on February 3, 1997, indicating completed status for Corrective Measures 3, 4, 6, and portions of 2 and provided status on the remaining corrective measures

Ecology continued the inspection of the 222-S Laboratory on February 13, 1997. Following the inspection, operations of the liquid waste generating activities at the 222-S Laboratory were suspended by management. This decision was voluntary and a controlled method-by-method resumption of analytical work was implemented, which resulted in significant improvements in all waste management activities. Ecology was informed of the new process.

In February 1998, DOE and Ecology agreed in principal to a negotiated settlement of the alleged violations and pending fine. DOE and 222-S Laboratory will pay $35,000 for a nature preserve. The 222-S Laboratory will be required to follow the operational criteria for SAA management in the 222-S Laboratory, as stipulated by Ecology in the settlement agreement. $40,000 payment suspended during a 2-year period provided there are no material violations at the 222-S Laboratory.

Date Received: 07/24/96
Agency: Ecology

SUMMARY:

Ecology performed an inspection of the 306-E Facility to follow up an Ecology inspection that occurred on September 14, 1995. One of the issues that Ecology had at that time concerned material being stored in two cabinets that contained what Ecology said appeared to be incompatible chemicals that could pose a threat to human health and the environment. Ecology issued a VCL on July 24, 1996, for storage of incompatible waste.

Ecology issued a formal NOP to DOE and WHC that included a $20,000 fine concerning storage of incompatible waste.

RESPONSE(S):

A formal response letter and payment of penalty was sent from WHC to Ecology on October 21, 1996. This enforcement action is considered closed. On August 1, 1997, Ecology transmitted a letter of closure for the 306-E Facility stating that the corrective measures have been satisfied.

Date Received: 03/06/96
Agency: Ecology

SUMMARY:

Ecology issued a NOV (DE 96NM-033) to DOE alleging violation of WAC 173-400-141, -110, and -115 dealing with PSD permitting, new source review, and new source performance standards under Washington's Clean Air Act.

The NOV was issued on March 6, 1996. Ecology alleges that DOE is in violation of WAC 173-400-141 for failure to apply for and obtain the required state PSD permit and then operate the 300 Area boiler package without the permit, and in violation of WAC 173-400-115 for failure to meet new source performance standards for SO_2 emission limits from the boiler. Construction of the 300 Area package boiler commenced in September 1989. Ecology determined that construction of the boiler constituted a major modification of the source subject to the PSD permit requirements. Additionally, the boiler has burned No. 6 fuel oil, and Ecology estimates that the SO_2 emission rates exceed the NSPS's SO_2 emission limits.

RESPONSE(S):

On August 12, 1996, Ecology transmitted their Agreed to Order to close this NOV. The Order proposes to close the NOV without fines or penalties if followed by DOE.

Date Received: 01/19/96

Agency: Ecology

SUMMARY:

Ecology issued a Notice of Penalty Incurred and Due (No. DE 96-NW-001) to DOE and BHI. The penalty was assessed based on a violation revealed from an investigation into dangerous waste management activities at the 183-H basins closure project. A $5,000 fine was assessed against DOE and BHI.

RESPONSE(S):

The penalty was paid and the NOV is considered closed.

Date Received: 05/30/95
Agency: Ecology

SUMMARY:

On May 30, 1995, Ecology issued a Notice of Penalty Incurred and Due (No. DE 95NW-127) to DOE and PNL after a pressurized drum that was improperly opened damaged the facility, caused worker contamination, and released radioactive material.

RESPONSE(S):

On August 7, 1995, Ecology transmitted a letter to DOE closing this action. This item was closed before initiation of this tracking system.

Date Received: 03/09/94
Agency: Ecology

SUMMARY:

Ecology issued an Order (No. DE 94NM-063) and Notice of Penalty Incurred and Due (No. DE 94NM-062) against the COE for disposing dangerous waste at the Richland Landfill, and against DOE for not providing adequate dangerous waste training to COE employees. Ecology assessed a penalty of $9,500 against DOE and a $6,000 penalty against COE. The fines stem from the accidental dumping of dangerous waste at the landfill as part of the cleanup activity ongoing at the North Slope. The incident occurred late in 1993.

RESPONSE(S):

On April 15, 1994, Ecology sent a letter to DOE and COE stating satisfaction that the corrective items identified in the Order had been completed, and approved the restart of dangerous waste management work on the North Slope. Ecology also requested in the letter that before the generation or potential generation of hazardous or mixed waste at identified past-practice waste sites, that Waste Control Plans be submitted to them for approval. Ecology stated that the "letter serves as a notice of completion of Order requirements," except for the ongoing requirements of the Waste Control Plans, and stated that the "entire case will be resolved upon payment" of the Penalty. This item was closed before initiation of this tracking system.

Date Received: 03/10/93
Agency: Ecology

SUMMARY:

Ecology issued a CO and NOP Incurred and Due for failure to adequately designate approximately 2,000 containers of solid waste. The NOP stipulated a penalty of $100,000. DOE and WHC disputed portions of the Order and Notice of Penalty.

RESPONSE(S):

DOE, WHC, and Ecology agreed to resolutions to the disputed portions, which were agreed to by the Washington State PCHB, which modified the Order and Notice of Penalty.

The settlement agreement for the Compliance Order required submittal of a waste analysis plan (WAP) to confirm or complete the designation of the waste in question. Extensive negotiations regarding the content of the WAP occurred between DOE, WHC, and Ecology, and final approval was granted by Ecology on November 1, 1993. Confirmation or completion of the waste designation, following the process established by the WAP, was required by September 1, 1994.

Negotiations regarding an alternative to the payment of the $100,000 penalty resulted in an agreement as amended July 7, 1995. This agreement allows DOE to set up an Environmental Protection Scholarship in the amount of $40,000 at Columbia Basin College. The agreement also allows payment to PNL and the Washington Department of Wildlife to plan for and carry out a sagebrush revegetation effort on the Hanford Arid Lands Ecology Reserve, and to work on a Priority Habitat and Species Map for Hanford.

On August 24, 1994, DOE transmitted a package to Ecology that completed the actions required by the Order. This item was closed before initiation of this tracking system.

Date Received: 02/03/93

Regulator: EPA

SUMMARY:

EPA issued a Compliance Order to DOE alleging noncompliance with the National Emission Standards for Hazardous Air Pollutants for radionuclides.

RESPONSE(S):

EPA and DOE negotiated a FFCA on February 7, 1994, to allow DOE to confirm compliance or meet the compliance requirements of 40 CFR 61, Subpart H. The FFCA superseded the compliance order and this will no longer be tracked as an open item. This item was closed before initiation of this tracking system.

Date Received: 02/02/93
Agency: WDOH

SUMMARY:

WDOH issued a NOV for radioactive air emission issues related to the proposed fuel encapsulation activities at the 100-KE fuel storage basins. The NOV stated that DOE and WHC have initiated work that directly supports fuel encapsulation without approval of WDOH. The NOV formally directed DOE and WHC to stop all work at the 100-KE Basins immediately.

RESPONSE(S):

DOE and WHC formally responded to the NOV, and a Notice of Construction permit was issued in the fall of 1993. This item was closed before initiation of this tracking system.

Date Received: 01/08/93
Agency: Ecology/EPA

SUMMARY:

Hanford Federal Facility Agreement and Consent Order (Agreement) Major Milestone M-14-00 required the construction and initiation of operation of a mixed waste laboratory by January 31, 1992. This milestone was not met as originally established. The DOE acknowledged that Agreement procedures for modification of the Agreement were not followed before a hold was placed on construction and steps were taken to obtain commercially available laboratory services.

RESPONSE(S):

The DOE initiated the Agreement dispute resolution procedures that proceeded to the Senior Executive Committee level, which determined that the DOE had violated Major Milestone M-14-00. The resulting settlement between DOE, EPA, and Ecology assessed DOE a fine of $100,000 and imposed several subsequent commitments along with a revised M-14-00 series of milestones. On March 10, 1994 the monetary penalty was paid and compliance with the associated commitments has been largely maintained.

Date Received: 10/23/92
Agency: EPA

SUMMARY:

The EPA issued a Notice of Noncompliance based on an inspection conducted in September 1991. One violation related to the cleanup of a PCB spill was identified. On November 13, 1992, DOE responded to the Notice of Noncompliance.

RESPONSE(S):

DOE stated in the response that the cleanup of the PCB spill was completed on September 28, 1991, not October 1, 1991, as alleged in the Notice of Noncompliance. DOE also outlined corrective actions to ensure that cleanup of PCB spills are initiated and completed within the required 48 hours.

On November 25, 1992, EPA sent a letter to DOE stating they were satisfied with DOE's response and corrective actions and closed the issue. This item was closed before initiation of this tracking system.

Date Received: 04/25/90
Agency: DOT

SUMMARY:

On April 25, 1990, the DOT issued a Federal Railroad Administration Probable NOV against WHC for violating the Hazardous Materials Transportation Act, and fined WHC $3,000.

RESPONSE(S):

The procedures were corrected to the satisfaction of DOT and, after negotiations, the fine was reduced to $2,100, which was paid by WHC. This item was closed before initiation of this tracking system.

Date Received: 07/20/89
Agency: Ecology

SUMMARY:

Ecology issued DOE and WHC a NOV based on their July 20, 1989, inspection of the 216-A-29 Ditch, 216-B Pond, and the Central Waste Complex.

Issues included the following; (1) the need to construct, at a minimum, a continuous single-strand chain fence with appropriate warning signs around the 216-A Ditch by September 30, 1989; (2) four radiation warning signs were found unsecured on the ground near the 216-A-29 Ditch and 216-B Pond facilities; and (3) 10 waste drums at Central Waste Complex were found to have exceeded the 90-day accumulation period while at the generating facility.

RESPONSE(S):

A continuous single-strand barrier was installed around the 216-A-29 Ditch and 216-B Pond. The unsecured signs have been reposted. Periodic inspections will be conducted to identify necessary corrective actions such as unsecured signs.

The 10 waste drums that exceeded the 90-day accumulation period were identified as originating from PFP. These drums were partially characterized and transferred to the Central Waste Complex for proper storage. A letter identifying the dangerous and mixed waste satellite and less-than-90-day accumulation areas on the Hanford Site was transmitted to Ecology. This item was closed before initiation of this tracking system.

Date Received: 06/12/89
Agency: Ecology

SUMMARY:

Ecology issued DOE and WHC a NOV based on their June 12, 1989, inspection of the 183-H Basins and 216-S-10 Pond and Ditch.

Issues included the following; (1) the need to construct at least a continuous single-strand rope fence with appropriate warning signs around the 216-S-10 Pond and Ditch before August 15, 1989; and (2) the need to stabilize two corroded and leaking drums containing mixed waste located at the 183-H Basins.

RESPONSE(S):

A single-strand barrier rope was installed with the appropriate warning signs around the 216-S-10 Pond and Ditch. The contents of the leaking drums were removed and repackaged in appropriately prepared drums. An inspection was conducted on the other drums containing dangerous waste at the 183-H facility and no other irregularities were noted. The Central Waste Complex, which receives 183-H dangerous waste drums, was inspected and no irregularities were noted. An analysis also was conducted on the probable cause of the corrosive material found on the drums. The results were presented to Ecology. This item was closed before initiation of this tracking system.

Date Received: 04/11/89
Agency: Ecology

SUMMARY:

Ecology issued DOE and WHC a NOV based on their April 10-11, 1989, inspection of B Pond and the Nonradioactive Dangerous Waste Landfill.

Issues included the following; (1) the need to construct at least a continuous single-strand rope fence with warning signs around B Pond and each of the three associated lobes; (2) the need to repair a 25 foot breach in the security fence surrounding the Nonradioactive Dangerous Waste Landfill; and (3) the need to evaluate the wooden pier over the 216-A-29 Ditch for stability and to establish load limits for its use.

RESPONSE(S):

The single-strand rope fence with appropriate warning signs has been installed around B Pond and its three lobes. The fence at the Nonradioactive Dangerous Waste Landfill has been repaired. The wooden pier over the 216-A-29 Ditch has been taken out of service, "DANGER - KEEP OFF" signs have been posted, and the structures have been barricaded. This item was closed before initiation of this tracking system.

List of Acronyms:

BHI	Bechtel Hanford, Inc.
CAA	Clean Air Act
CM	Corrective Measure(s)
CO	Compliance Order
CFR	Code of Federal Regulations
COE	U.S. Army Corps of Engineers
DOE	U.S. Department of Energy
DOT	U.S. Department of Transportation
DST	Double Shell Tank
Ecology	State of Washington Department of Ecology
EPA	Environmental Protection Agency
ERDF	Environmental Restoration Disposal Facility
FDH	Fluor Daniel Hanford
FFCA	Federal Facilities Compliance Agreement
LMHC	Lockheed Martin Hanford Company
MEI	Maximally Exposed Individual
NOC	Notice of Correction
NOV	Notice of Violation
PCB	Polychlorinated Biphenols
PCHB	Pollution Control Hearings Board
PFP	Plutonium Finishing Plant
PRF	Plutonium Reclamation Facility
PSD	Prevention of Significant Deterioration
RCW	Revised Code of Washington
RFSH	Rust Federal Services of Hanford
SAA	Satellite Accumulation Area
VCL	Voluntary Compliance Letter
WAC	Washington Administrative Code
WDOH	State of Washington Department of Health
WHC	Westinghouse Hanford Company

LEGEND

MAJOR ROADS	
DIRT ROADS	
RAILROADS	
HANFORD SITE BOUNDARY	
INTERSTATE ROUTE	182
WASHINGTON STATE ROUTE	240
WASHINGTON STATE GRID (METERS)	E.550,000 , N.105,000
CONTOURS	
COLD CREEK (EPHEMERAL)	

SITE PLAN

SCALE: 1:85000
1 cm = 850 meters

0 850 1700 3400 5100 6800 METERS

0 3000 12000 24000 36000 48000 FEET

0 1 3 5 10 MILES

GENERAL NOTES

1. AREA WITHIN HANFORD SITE THAT IS NOT SPECIFICALY IDENTIFIED IS CONSIDERED THE 600 AREA.
2. PERMISSION AND APPROVAL TO CHANGE THIS MAP MUST BE OBTAINED BECAUSE THIS MAP WAS SUBMITTED WITH HANFORD FACILITY PERMITS TO THE WASHINGTON STATE DEPARTMENT OF ECOLOGY.

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

DWG NO	TITLE
DRAWING TRACEABILITY LIST	

REF NUMBER	TITLE
REFERENCES	
NEXT USED ON	END ITEM

REV NO	DESCRIPTION	REV BY DATE	CHK BY DATE	DFTG APVD DATE	COG ENGR	OTHER	OTHER
6	REVISED PER ECN #644528	RBT 9/97					
5	REVISED PER ECN #144201	JWV 5/94					

APPROVALS BY/DATE

REVISIONS

CADFILE F000958A CADCODE DOS:6.0:ACD2:12.0:SS

		DATE
DRAWN	K.D. JUNT	3/89
CHECKED	D.R. COWEN	3/3/89
DFTG APVD	R.L. MARTELL	3/89
COG ENGR	D.S. ARMSTRONG	3/89
APVD	M.M. MCCARTHY	3/13/89
APVD	S.M. PRICE	3/17/89
APVD		
APVD		
APVD		
APVD		

U.S. DEPARTMENT OF ENERGY
Richland Operations Office
Fluor Daniel Northwest

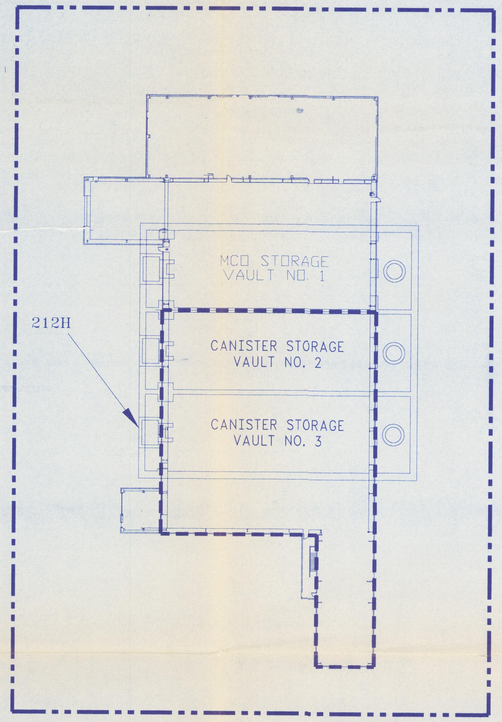
GENERAL OVERVIEW OF HANFORD SITE

SIZE	BLDG NO	INDEX NO	DWG NO	REV
F	600G	0100	H-6-958	6
SCALE SHOWN		EDT 101111	SHEET 1 OF 1	

CHK PRINT DATE COMMENT PRINT DATE

DWG NO H-6-958 REV 6 SH 1 OF 1

54-6000-0276(5/89)



PARTIAL PLAN

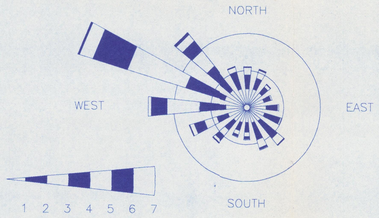
SCALE 1:500

0 5 10 20 30 40

1 cm = 5 meters

WIND ROSE FOR: 200E AREA
% CALM WINDS = .7
STATION NO.6

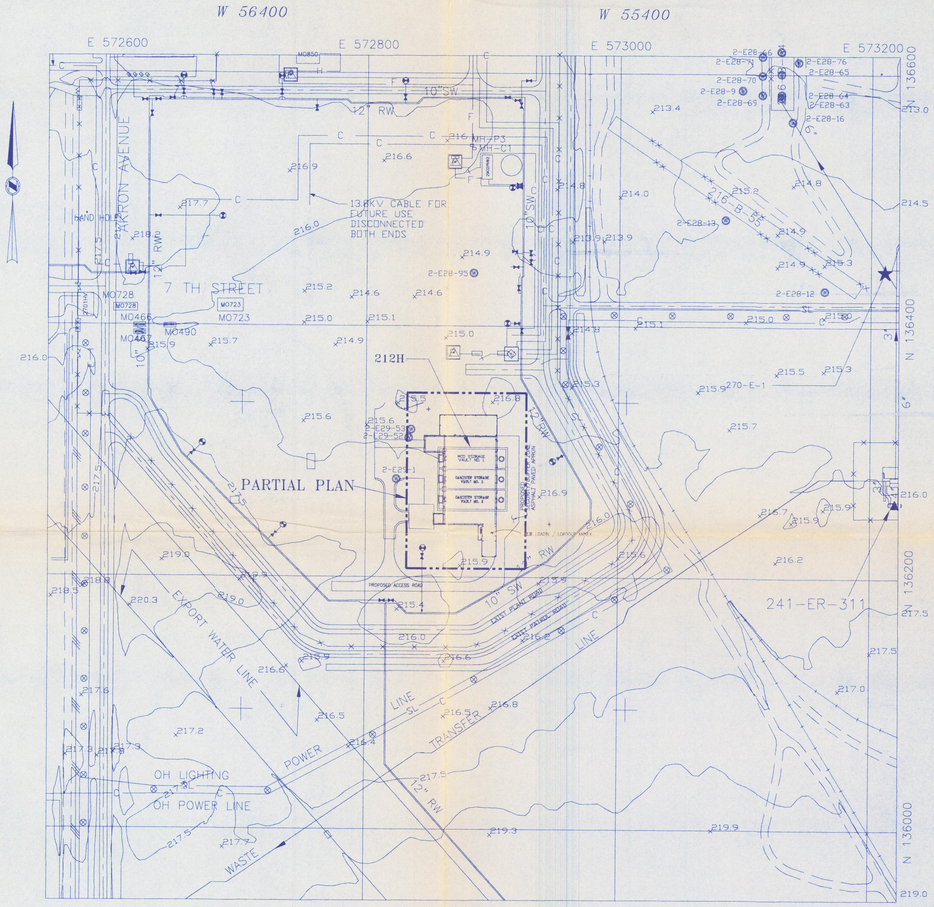
PERIOD COVERED
1/1/82 – 12/31/96



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

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

WIND ROSE

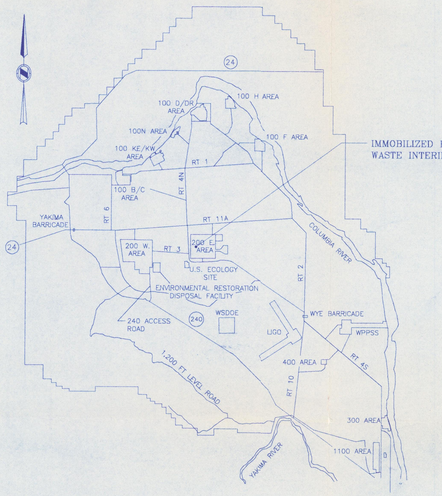


SITE PLAN

SCALE: 1:2000

0 20 40 80 120 160

1 cm = 20 meters



KEY PLAN

SCALE: NONE

LEGEND

W 47,000 N 43,000	HANFORD PLANT COORDINATES (FEET)
E 576,250 N 136,000	WASHINGTON STATE COORDINATES (METERS)
215.0	INDEX CONTOUR (METERS)
	INTERMEDIATE CONTOUR
	IMPROVED ROAD
	UNIMPROVED ROAD
	RAILROADS
	SECURITY, WARNING, MISC FENCES
	POST & CHAIN (CRIB, BURIAL GROUND FENCES)
	PERIMETER FENCES
	BUILDINGS/STRUCTURES & TOWERS
242A	BUILDING NUMBER
	MOBILE OFFICES
	BRUSH
	WELL
	TANKS
216-A-	CRIB
218-E-	BURIAL GROUND
10" SW	SANITARY WATER
12" RW	RAW WATER
	FIRE HYDRANT
	POWER POLE
	WATER VALVE

PARTIAL PLAN

TSD UNIT BOUNDARY

GENERAL NOTES

1. THIS MAP IS BASED ON AERIAL PHOTOGRAPHY FLOWN ON 6-24-89. THE ORIGINAL TOPOGRAPHIC MAP WAS PREPARED BY MERRICK & COMPANY AND CERTIFIED TO MEET NATIONAL MAP ACCURACY STANDARDS. OFFICIAL COPIES OF THE MERRICK MAPS THAT SHOW THE CERTIFICATE ARE LOCATED IN THE LOCKHEED MARTIN ENGINEERING FILES AS DRAWING NUMBERS H-2-79476 SHEET 1 AND H-2-79477 SHEET 1 THRU 37. NAMES OF ADDITIONAL FEATURES AND THE TITLE BLOCK WERE ADDED BY WESTINGHOUSE HANFORD COMPANY.

2. WASHINGTON STATE PLANE COORDINATE SYSTEM: THE OFFICIAL COORDINATE SYSTEM AS DEFINED BY THE REVISED CODE OF WASHINGTON (RCW). THE HANFORD SITE LIES WITHIN THE WASHINGTON COORDINATE SYSTEM, SOUTH ZONE. THIS GRID COVERS THE ENTIRE SITE AND USES X (EASTINGS) AND Y (NORTHINGS) COORDINATES.

   HORIZONTAL DATUM: NAD-83 LAMBERT PROJECTION. WASHINGTON STATE PLANE COORDINATES ARE SHOWN IN METERS.

   CONTOUR INTERVAL: 1.5 METERS.

3. HANFORD PLANT GRID: A LOCAL GRID SYSTEM WITH ITS INITIAL POINT NORTHEAST OF THE 400 AREA. IT COVERS 200 EAST AND 200 WEST AREA AS WELL AS GENERAL SITE WORK SUCH AS WELLS AND BURIAL GROUNDS. HANFORD COORDINATES ARE SHOWN IN FEET.

4. PARTIAL PLAN SHOWS TREATMENT STORAGE AND DISPOSAL UNIT BOUNDARY.

AUG 11 1998
DATE: STA: 15 HANFORD RELEASE ID: 21

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

		DATE
DRAWN	AK LEWIS	6-19-98
CHECKED	LA WATSON	8/98
DFTG APVD	RAW	8/98
COG ENGR	Joe Tele	8/11/98
APVD		
APVD		
APVD		
APVD		
APVD		
APVD		

U.S. DEPARTMENT OF ENERGY
Richland Operations Office
Fluor Daniel Northwest

IMMOBILIZED HIGH-LEVEL WASTE INTERIM STORAGE UNIT TOPOGRAPHIC MAP

SIZE	BLDG NO	INDEX NO	DWG NO	REV
F	212H	0103	H-13-000287	0
SCALE	SHOWN	EDT 624538	SHEET 1 OF 1	

CHK PRINT ☐ DATE
COMMENT PRINT ☐ DATE

DWG NO	TITLE
DRAWING TRACEABILITY LIST	

REF NUMBER	TITLE
REFERENCES	
NEXT USED ON	NA

REV NO	DESCRIPTION	REV BY DATE	CHK BY DATE	DFTG APVD DATE	COG ENGR	OTHER	OTHER
REVISIONS							

CADFILE N000287A CADCODE WIN95::ACD2:14.0:SS

54-6000-027(5/89)

H-13-000287 SH 1 OF 1 REV 0