Permit Number: WA7 89000 8967
Revision Number: 8C

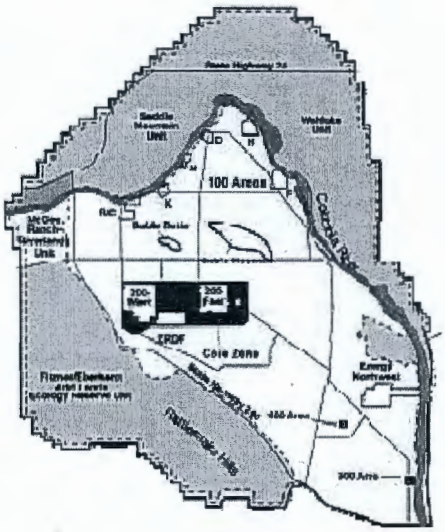
0073744

WASHINGTON STATE DEPARTMENT OF ECOLOGY

Hanford Facility
Resource Conservation and Recovery Act Permit, Dangerous Waste Portion

Revision 8C

For the Treatment, Storage, and Disposal of Dangerous Waste



Washington State Department of Ecology
Nuclear Waste Program

August 2007

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Permit Number: WA7 89000 8967
Revision Number: 8C

For additional copies of this permit contact:

Washington State Department of Ecology
3100 Port of Benton Boulevard
Richland, Washington 99354-1670
509-372-7950

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Department of Ecology Headquarters telecommunications device for the deaf (TDD) number is: (360) 407-6006

DANGEROUS WASTE PORTION OF THE RESOURCE CONSERVATION AND RECOVERY ACT PERMIT FOR THE TREATMENT, STORAGE, AND DISPOSAL OF DANGEROUS WASTE

Washington State Department of Ecology
Nuclear Waste Program
3100 Port of Benton Boulevard
Richland, Washington 99354
Telephone: 509-372-7950

Issued in accordance with the applicable provisions of the Hazardous Waste Management Act, Chapter 70.105 Revised Code of Washington (RCW), and the regulations promulgated there under in Chapter 173-303 Washington Administrative Code (WAC).

ISSUED TO:

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This Permit as modified on August 28, 2007, will remain in effect until reissuance of the September 27, 2004 Permit, unless revoked and reissued under WAC 173-303-830(3), terminated under WAC 173-303-830(5), or continued in accordance with WAC 173-303-806(7).

ISSUED BY:
WASHINGTON STATE DEPARTMENT OF ECOLOGY

_____ Date: _____

Jane A. Hedges, Program Manager
Nuclear Waste Program, Department of Ecology

TABLE OF CONTENTS

LIST OF ATTACHMENTS 5
INTRODUCTION 6
UNIT STATUS TABLE 9
DEFINITIONS 11
ACRONYMS 14
PART I STANDARD CONDITIONS 16
I.A EFFECT OF PERMIT 16
I.B PERSONAL AND PROPERTY RIGHTS 17
I.C PERMIT ACTIONS 17
I.D SEVERABILITY 17
I.E DUTIES AND REQUIREMENTS 18
I.F SIGNATORY REQUIREMENT 23
I.G CONFIDENTIAL INFORMATION 23
I.H DOCUMENTS TO BE MAINTAINED AT FACILITY SITE 23
PART II GENERAL FACILITY CONDITIONS 24
II.A FACILITY CONTINGENCY PLAN 24
II.B PREPAREDNESS AND PREVENTION 24
II.C PERSONNEL TRAINING 25
II.D WASTE ANALYSIS 25
II.E QUALITY ASSURANCE/QUALITY CONTROL 26
II.F GROUND WATER AND VADOSE ZONE MONITORING 27
II.G SITING CRITERIA 28
II.H RECORDKEEPING AND REPORTING 28
II.I FACILITY OPERATING RECORD 28
II.J FACILITY CLOSURE 29
II.K SOIL/GROUND WATER CLOSURE PERFORMANCE STANDARDS 30
II.L DESIGN AND OPERATION OF THE FACILITY 31
II.M SECURITY 32
II.N RECEIPT OF DANGEROUS WASTES GENERATED OFF-SITE 32
II.O GENERAL INSPECTION REQUIREMENTS 33
II.P MANIFEST SYSTEM 33
II.Q ON-SITE TRANSPORTATION 34
II.R EQUIVALENT MATERIALS 34
II.S LAND DISPOSAL RESTRICTIONS (LDR) 35
II.T ACCESS AND INFORMATION 35
II.U MAPPING OF UNDERGROUND PIPING 35
II.V MARKING OF UNDERGROUND PIPING 36
II.W OTHER PERMITS AND/OR APPROVALS 36
II.X SCHEDULE EXTENSIONS 36
II.Y CORRECTIVE ACTION 37
II.Z WASTE MINIMIZATION 41
II.AA AIR EMISSION STANDARDS FOR PROCESS VENTS 41
II.BB AIR EMISSION STANDARDS FOR EQUIPMENT LEAKS 41
II.CC AIR EMISSION STANDARDS FOR TANKS, SURFACE IMPOUNDMENTS, AND CONTAINERS 42
PART III UNIT-SPECIFIC CONDITIONS FOR FINAL STATUS OPERATIONS 42

Operating Unit 1, 305-B Storage Facility, (Clean Closed 7/2/07) 42
Operating Unit 2, PUREX Storage Tunnels 42
Operating Unit 3, Liquid Effluent Retention Facility and 200 Area Effluent Treatment Facility 42
Operating Unit 4, 242-A Evaporator 42
Operating Unit 5, 325 Hazardous Waste Treatment Units 42
Operating Unit 10, Waste Treatment and Immobilization Plant 42
Operating Unit 11, Integrated Disposal Facility 42
Operating Unit 15, 331-C Storage Unit 42
Operating Unit 16, 400 Area Waste Management Unit 42

PART IV UNIT SPECIFIC CONDITIONS FOR CORRECTIVE ACTION 42
Corrective Action Unit 1, 100-NR-1 42
Corrective Action Unit 2, 100-NR-2 42

PART V UNIT-SPECIFIC CONDITIONS FOR UNITS UNDERGOING CLOSURE 42
Closure Unit 1, 1325-N Liquid Waste Disposal Facility 42
Closure Unit 2, 1301-N Liquid Waste Disposal Facility 42
Closure Unit 3, 1324-N Surface Impoundment and 1324-NA Percolation Pond 42
Closure Unit 5, 300 Area Waste Acid Treatment System 42
Closure Unit 10, 224-T Transuranic Waste Storage and Assay Facility 42

PART VI UNIT-SPECIFIC CONDITIONS FOR UNITS IN POST-CLOSURE 42
Post-Closure Unit 1, 300 Area Process Trenches 42
Post-Closure Unit 2, 183-H Solar Evaporation Basins 42

UNITS RETIRED FROM THE PERMIT 43
241-Z Treatment and Storage Tanks, (Clean Closed 2/22/07) 43
303-M Oxide Facility, (Clean Closed 6/15/06) 43
Plutonium Finishing Plant Treatment Unit, (Clean Closed 2/8/05) 43
105-DR Large Sodium Fire Facility, (Closed 7/1/04) 43
303-K Storage Facility (Clean Closed, 7/22/02) 43
100 D Ponds, (Clean Closed, 8/9/99) 43
3718-F Alkali Metal Treatment and Storage Facility Closure Plan, (Clean Closed, 8/4/98) 43
4843 Alkali Metal Storage Facility Closure Plan, (Clean Closed, 4/14/97) 43
304 Concretion Facility, (Clean Closed, 1/21/96) 43
218-E-8 Borrow Pit Demolition Site, (Clean Closed, 11/28/95) 43
200 West Area Ash Pit Demolition Site, (Clean Closed, 11/28/95) 43
2101-M Pond, (Clean Closed, 11/28/95) 43
Hanford Patrol Academy Demolition Site, (Clean Closed, 11/28/95) 43

1 Simulated High Level Waste Slurry Treatment and Storage Unit, (Clean Closed, 10/23/95) 43

2 300 Area Solvent Evaporator, (Clean Closed, 7/31/95) 43

3 2727-S Nonradioactive Dangerous Waste Storage Facility, (Clean Closed, 7/31/95) 43

4 216-B-3 Expansion Ponds, (Clean Closed, 7/31/95) 43

List of Attachments

The following listed documents are attached in their entirety. However, only those portions of the attachments specified in Parts I through VI are enforceable conditions of this Permit and subject to the permit modification requirements of Permit Condition I.C.3. Changes to portions of the attachments, which are not subject to the permit modification process, will be addressed in accordance with Permit Conditions I.E.8, I.E.11, I.E.13, I.E.15, through I.E.20, and I.E.22. Ecology has, as deemed necessary, modified specific language in these attachments. These modifications are described in the conditions (Parts I through VI), and thereby supersede the language of the attachment.

Attachment 1	Hanford Federal Facility Agreement and Consent Order, (as amended) http://www.hanford.gov/tpa/coverpg.htm
Attachment 2	Hanford Facility Legal Description, from Class [1]1 modification, dated January 7, 1999
Attachment 3	Permit Applicability Matrix, dated March 2006
Attachment 4	*Hanford Emergency Management Plan*, DOE/RL-94-02 Revision 2, as amended and approved modifications
Attachment 5	Purgewater Management Plan, July 1990
Attachment 6	Hanford Well Maintenance and Inspection Plan, BHI-01265, Revision 0, May 1999
Attachment 7	Policy on Remediation of Existing Wells and Acceptance Criteria for RCRA and CERCLA, June 1990
Attachment 33	Hanford Facility Dangerous Waste Permit Application General Information Portion, DOE/RL-91-28, Revision 7, and approved modifications

Introduction

Where information regarding treatment, management, and disposal of the radioactive source, byproduct material, special nuclear material (as defined by the Atomic Energy Act of 1954, as amended) and/or the radionuclide component of mixed waste has been incorporated into this permit, it is not incorporated for the purpose of regulating the radiation hazards of such components under the authority of this permit or Chapter 70.105 RCW.

Pursuant to Chapter 70.105 RCW, the Hazardous Waste Management Act (HWMA) of 1976, as amended, Chapter 70.105D RCW, the Model Toxics Control Act (MTCA), and regulations promulgated there under by the Washington State Department of Ecology (hereafter called Ecology), codified in Chapter 173-303 Washington Administrative Code (WAC), Dangerous Waste Regulations, a Dangerous Waste Permit is issued to the United States Department of Energy (USDOE) - Richland Operations Office (RL) and Office of River Protection (ORP), [owner/operator], and its contractors, Fluor Hanford, Inc. (FH), [co-operator], Pacific Northwest National Laboratory (PNNL), [co-operator], CH2MHILL Hanford Group, Inc. (CHG), [co-operator], Washington Closure Hanford, LLC (WCH), [co-operator], and Bechtel National, Incorporated (BNI), [co-operator], hereafter called the Permittees, for the treatment, storage, and disposal of dangerous waste at the Hanford Facility.

This Dangerous Waste Permit, issued in conjunction with the United States Environmental Protection Agency's (hereafter called EPA) Hazardous and Solid Waste Amendments Portion of the Resource Conservation and Recovery Act (RCRA) Permit for the Treatment, Storage, and Disposal (TSD) of Hazardous Waste (HSWA Permit), constitutes the RCRA Permit for the Hanford Facility. Use of the term "Permit" within the Dangerous Waste Permit will refer to the Dangerous Waste Permit, while use of the term "Permit" within the HSWA Permit, will refer to the HSWA Permit. Use of the same term in both the Dangerous Waste Permit and the HSWA Permit, will have the standard meaning associated with the activities addressed by the permit in which the term is used. Such meanings will prevail, except where specifically stated otherwise.

The Permittees will comply with all terms and conditions set forth in this Permit and those portions of the Attachments that have been specifically incorporated into this Permit. When the Permit and the Attachments (except Permit Attachment 1) conflict, the wording of the Permit will prevail. The Permit is intended to be consistent with the terms and conditions of the Hanford Federal Facility Agreement and Consent Order (HFFACO, Permit Attachment 1). The Permittees will also comply with all applicable state regulations, including Chapter 173-303 WAC.

Applicable state regulations are those which are in effect on the date of issuance, or as specified in subsequent modifications of this Permit. In addition, applicable state regulations include any self-implementing statutory provisions and related regulations which, according to the requirements of the HWMA, as amended, or other law(s), are automatically applicable to the Permittees' dangerous waste management activities, notwithstanding the conditions of this Permit.

This Permit is based upon the Administrative Record, as required by WAC 173-303-840. The Permittees' failure in the application, or during the Permit issuance process, to fully disclose all relevant facts, or the Permittees' misrepresentation of any relevant facts at any time, will be grounds for the termination or modification of this Permit and/or initiation of an enforcement action, including criminal proceedings. The Permittees will inform Ecology of any deviation from the Permit conditions, or changes in the information on which the application is based, which would affect either the Permittees' ability to comply, or actual compliance with the applicable regulations or the Permit conditions, or which alters any condition of this Permit in any way.

Ecology will enforce all conditions of this Permit for which the State of Washington is authorized, or which are "state-only" provisions (i.e., conditions broader in scope or more stringent than the federal RCRA program). Any challenges of any Permit condition may be appealed in accordance with WAC 173-303-845. In the event that any Permit condition is challenged by any Permittee under WAC 173-303-845, Ecology may stay any such Permit condition as it pertains to all Permittees, in accordance with the same terms of any stay it grants to the challenging Permittee. If such a stay is granted, it will constitute a "stay by the issuing agency" within the meaning of RCW 43.21B.320(1).

This Permit has been developed to allow a step-wise permitting process of the Hanford Facility to ensure the proper implementation of the HFFACO. In order to accomplish this, this Permit consists of six (6) parts.

Part I, Standard Conditions, contains conditions which are similar to those appearing in all dangerous waste permits.

Part II, General Facility Conditions, combines typical dangerous waste permit conditions with those conditions intended to address issues specific to the Hanford Facility. Where appropriate, the general facility conditions apply to all final status dangerous waste management activities at the Facility. Where appropriate, the general facility conditions also address dangerous waste management activities which may not be directly associated with distinct TSD units, or which may be associated with many TSD units (i.e., spill reporting, training, contingency planning, etc.). Part II also includes conditions that address corrective action at solid waste management units and areas of concern.

Part III, Unit-Specific Conditions for Operating Units, contains those Permit requirements that apply to each individual TSD unit operating under final status. Conditions for each TSD unit are found in a chapter dedicated to that TSD unit. These unit-specific chapters contain references to Standard Conditions (Part I) and General Conditions (Part II), as well as additional requirements which are intended to ensure that each TSD unit is operated in an efficient and environmentally protective manner. Additional requirements may also be added when an operating unit ceases operations and undergoes closure.

Part IV, Unit-Specific Conditions for Corrective Action, contains those permit requirements which apply to specific RPP units that are undergoing corrective action under the HFFACO. RPP units may include solid waste management units and other areas of concern (i.e., releases that are not at solid waste management units and do not constitute a solid waste management unit) that are undergoing corrective action. For The Comprehensive Environmental Response, Conservation, and Liability Act (CERCLA) and RCRA past practice (RPP) units identified in the HFFACO, the corrective action conditions are structured around continued coordination with, and reliance on, the investigation and cleanup requirements established under the HFFACO. For TSD units identified in the HFFACO, the corrective action conditions contemplate use of closure and post-closure processes to satisfy corrective action.

Part V, Unit-Specific Conditions for Units Undergoing Closure, contains those requirements which apply to those specific TSD units, included in this part, that are undergoing closure. In accordance with Section 5.3 of the Action Plan of the HFFACO, all TSD units that undergo closure, irrespective of permit status, will be closed pursuant to the authorized State Dangerous Waste Program in accordance with WAC 173-303-610. Requirements for each TSD unit undergoing closure are found in a chapter dedicated to that TSD unit. These unit-specific chapters contain references to Standard Conditions (Part I) and General Conditions (Part II), as well as additional requirements which are intended to ensure that each TSD unit is closed in an efficient and environmentally protective manner.

Part VI, Unit-Specific Conditions for Units in Post-Closure, contains those requirements which apply to those specific units in this part that have completed modified or landfill closure requirements, and now only need to meet Post-Closure Standards. As set forth in Section 5.3 of the Action Plan of the HFFACO, certain TSD units will be permitted for post-closure care pursuant to the authorized State Dangerous Waste Program (173-303 WAC) and the Hazardous and Solid Waste Amendments. Requirements for each unit undergoing post-closure care are found in a chapter, within this part, dedicated to that unit. These unit specific chapters may contain references to Standard Conditions (Part I) and General Conditions (Part II), as well as the unit specific conditions, all of which are intended to ensure the unit is managed in an efficient, environmentally protective manner.

1 Unit Status Table

PERMIT REVISION	REVISION DATE	UNITS INCORPORATED
Permit Revision 0	8/29/94	616 NDWSF, 305-B Storage Facility, 183-H SEB, 300 ASE, 2727-S, NRDWSF
Permit Revision 1	4/28/95	Simulated High-Level Waste Slurry, 218-E-9 Borrow Pit Demo Site, 200 W Area Ash Pit Demo Site, 2101-M Pond, 216-B-3 Expansion Ponds
Permit Revision 2	8/29/95	Hanford Patrol Academy Demolition Site, 105-DR Large Sodium Fire Facility, 304 Concretion Facility
Permit Revision 3	11/25/96	4843 Alkali Metal Storage Facility, 3718-F Alkali Metal Treatment & Storage Facility, 303-K Storage Facility, 300 APT
Permit Revision 4	1/28/98	PUREX Storage Tunnels, LERF & 200 Area ETF, 242-A Evaporator, 325 HWTUs
Permit Revision 5	5/18/99	100 D Ponds, 1301-N & 1325-Liquid Waste Disposal Facility, 1324-N Surface Impoundment, 1324-NA Percolation Pond
Permit Revision 6	3/28/00	Permit Condition II.Y, Corrective Action
Permit Revision 7	2/27/01	Waste Treatment & Immobilization Plant, 300 Area WATS
Permit Revision 8	9/23/04	No new units, modification updates
Permit Revision 8A	3/6/06	Integrated Disposal Facility
Permit Revision 8B	1/2007	331-C Storage Unit, PFP Treatment Unit, 241-Z Treatment & Storage Tanks, 303-M Oxide Facility
Permit Revision 8C	8/2007	400 Area Waste Management Unit, 224-T TRUSAF

UNIT	Permit Revision		Comments/History
	Incorporated	Retired	
PART III, OPERATING UNITS			
616 Nonradioactive DWSF	Rev. 6	Rev. 7	Closed, 9/5/01
242-A Evaporator	Rev. 4		
305-B Storage Facility	Rev. 0		Closed, 7/2/07
325 Hazardous Waste Treatment Units	Rev. 4		RLWT procedural closure, 9/04
LERF & 200 Area ETF	Rev. 4		
PUREX Storage Tunnels	Rev. 3		
Waste Treatment and Immobilization Plant	Rev. 7		Permitted unit under construction
Integrated Disposal Facility	Rev. 8A		
331-C Storage Unit	Rev. 8B		
400 Area Waste Management Unit	Rev. 8C		
PART V, UNDERGOING CLOSURE UNITS			
100-D Ponds	Rev. 5	Rev. 6	Closed, 8/9/99
105 DR Large Sodium Fire Facility	Rev. 2	Rev. 6	Closed, 7/1/04
1301-N Liquid Waste Disposal Facility	Rev. 5		
1324-N Surface Impoundment	Rev. 5		
1324-NA Percolation Pond	Rev. 5		
1325-N Liquid Waste Disposal Facility	Rev. 5		
200 West Area Ash Pit Demo Site	Rev. 1	Rev. 6	Closed, 11/28/95
2101-M Pond	Rev. 1	Rev. 6	Closed, 11/28/95
216-B-3 Expansion Ponds	Rev. 1	Rev. 6	Closed, 7/31/95
218-E-8 Borrow Demolition Site	Rev. 1	Rev. 6	Closed, 11/28/95
2727-S Storage Facility	Rev. 0	Rev. 6	Closed, 7/31/95
300 Area Solvent Evaporator	Rev. 0	Rev. 6	Closed, 7/31/95
300 Area Waste Acid Treatment System	Rev. 6	Rev. 8B	Closed, 1/21/05
303-K Storage Facility	Rev. 4	Rev. 6	Closed, 7/22/02
304 Concretion Facility	Rev. 2	Rev. 6	Closed, 1/21/96
311 Tanks	Rev. 6	Rev. 7	Closed, 5/20/02. 300 Area WATS Part A
3718-F Alkali Metal Treatment /Storage	Rev. 3	Rev. 6	Closed, 8/4/98
4843 Alkali Metal Storage Facility	Rev. 3	Rev. 6	Closed, 4/14/97
Hanford Patrol Academy Demo Site	Rev. 2	Rev. 6	Closed, 11/28/95
Simulated High Level Waste Slurry	Rev. 1	Rev. 6	Closed, 9/6/95
PFP Treatment Unit (HA-20MB)	Rev. 8B	Rev. 8B	Closed, 2/8/05.
241-Z Treatment and Storage Tanks	Rev. 8B	Rev. 8B	Closed 2/22/07
303-M Oxide Facility	Rev. 8B	Rev. 8B	Closed; 6/15/06
224-T Transuranic Waste Storage and Assay Facility	Rev. 8C		

PART VI, POSTCLOSURE UNITS			
183-H Solar Evaporation Basin	Rev 4		
300 Area Process Trenches	Rev 3		
PROCEDURALLY CLOSED			
216-U-12 Crib	N/A	N/A	Closed, 7/19/07
221-T Test Facility	N/A	N/A	Closed, 2/22/99
2727-WA SRE Sodium Storage Bldg	N/A	N/A	Closed, 2/22/99
324 Pilot Plant	N/A	N/A	Closed, 6/9/97
332 Storage Facility	N/A	N/A	Closed, 4/21/97
437 Maintenance and Storage Facility F	N/A	N/A	Closed, 9/11/03
Biological Treatment Test Facilities	N/A	N/A	Closed,12/10/96
Physical & Chemical Treatment & Test	N/A	N/A	Closed, 5/13/96
Sodium Storage/Sodium Reaction	N/A	N/A	Closed, 9/17/03
Thermal Treatment Test Facilities	N/A	N/A	Closed, 5/13/96
TO BE INCORPORATED			
1706-KE Waste Treatment System			
207-A South Retention Basin			
216-A-10 Crib			
216-A-29 Ditch			
216-A-36B Crib			
216-A-37-1 Crib			
216-B-3 Main Pond			
216-B-63 Trench			
216-S-10 Pond & Ditch			
222-S Dangerous & Mixed Waste TSD Unit			
241-CX Tank System			
600 Area Purgewater Storage and Treatment Facility (Modu Tanks)			
Central Waste Complex			
Contact Handled Transuranic Mixed Waste Packaging and Interim Storage Facility			
DST System/204-AR Waste Unloading Station			
Grout Treatment Facility			
Hexone Storage & Treatment Facility			
IHLW Interim Storage/Canister Storage Building			
Low-Level Burial Grounds			
Nonradioactive Dangerous Waste Landfill			
Single-Shell Tank System			
T Plant Complex			
Waste Encapsulation and Storage Facility			
Waste Receiving and Processing Facility			
TRANSITION UNDER TPA SECTION 8 (Will not be incorporated into Permit)			
B Plant Complex			
PUREX Plant			

DEFINITIONS

Except with respect to those terms specifically defined below, all definitions contained in the HFFACO, May 1989, as amended, and in WAC 173-303-040 and other portions of Chapter 173-303 WAC are hereby incorporated, in their entirety, by reference into this Permit. For terms defined in both Chapter 173-303 WAC and the HFFACO, the definitions contained in Chapter 173-303 WAC will control within this Permit. Nonetheless, this Permit is intended to be consistent with the HFFACO.

Where terms are not defined in the regulations, the Permit, or the HFFACO, a standard dictionary reference, or the generally accepted scientific or industrial meaning of the terms will define the meaning associated with such terms.

As used in this Permit, words in the masculine gender also include the feminine and neuter genders, words in the singular include the plural, and words in the plural include the singular.

The following definitions apply throughout this Permit:

a. The term "**Area of Concern**" means any area of the Facility where a release of dangerous waste or dangerous constituents has occurred, is occurring, is suspected to have occurred, or threatens to occur.

b. The term "**Contractor(s)** " means, unless specifically identified otherwise in this Permit, or Attachments, Fluor Hanford, Inc. (FH), Pacific Northwest National Laboratory (PNNL), Washington Closure Hanford LLC (WCH), CH2M HILL Hanford Group, Inc. (CH2), and Bechtel National, Inc. (BNI).

c. The term "**Critical Systems**" as applied to determining whether a Permit modification is required, means those specific portions of a TSD unit's structure, or equipment, whose failure could lead to the release of dangerous waste into the environment, and/or systems which include processes which treat, transfer, store, or dispose of regulated wastes. A list identifying the critical systems of a specific TSD unit may be developed and included in Part III, V, and/or VI of this Permit. In developing a critical system list, or in the absence of a critical system list, WAC 173-303-830 Modifications will be considered.

d. The term "**Dangerous Constituent**" means any constituent identified in WAC 173-303-9905 or 40 CFR Part 264 Appendix IX, any constituent which caused a waste to be listed or designated as dangerous under Chapter 173-303 WAC, and any constituents within the meaning of hazardous substance at RCW 70.105D.020(7).

e. The term "**Dangerous Waste**" means those solid wastes designated under Chapter 173-303 WAC as dangerous or extremely hazardous waste. As used in the Permit, the phrase "dangerous waste" will refer to the full universe of wastes regulated by Chapter 70.105 RCW and Chapter 173-303 WAC (including dangerous waste, hazardous waste, extremely hazardous waste, mixed waste, and acutely hazardous waste).

f. The term "**Days**" means calendar days, unless specifically identified otherwise. Any submittal, notification, or recordkeeping requirement that would be due, under the Conditions of this Permit, on a Saturday, Sunday, or federal, or state holiday, will be due on the following business day, unless specifically stated otherwise in the Permit.

g. The term "**Director**" means the Director of the Washington State Department of Ecology, or a designated representative. The Program Manager of the Nuclear Waste Program (with the address as specified on page one [1] of this Permit) is a duly authorized and designated representative of the Director for purposes of this Permit.

h. The term "**Ecology**" means the Washington State Department of Ecology (with the address as specified on page one [1] of this Permit).

i. The term "**Facility**" means all contiguous land, structures, other appurtenances, and improvements on the land used for recycling, reusing, reclaiming, transferring, storing, treating, or disposing of dangerous waste. The legal and physical description of the Facility is set forth in Permit Attachment 2.

j. The term "**Facility**" for the purposes of corrective action under Permit Condition II.Y, means all contiguous property under the control of the Permittees and all property within the meaning of "facility" at RCW 70.105D.020(3) as set forth in Permit Attachment 2.

k. The term "**HFFACO**" means the Hanford Federal Facility Agreement and Consent Order, as amended (Commonly referred to as Tri-Party Agreement [TPA]).

l. The term "**Permittees**" means the United States Department of Energy (owner/operator), Fluor Hanford Inc. (Co-operator), Washington Closure Hanford LLC (Co-operator), Bechtel National, Inc. (Co-operator), CH2M HILL Hanford Group, Inc. (Co-operator), and Pacific Northwest National Laboratory (Co-operator).

m. The term "**Permittees**" for purposes of corrective action under Permit Condition II.Y means only the United States Department of Energy (owner/operator).

n. The term "**Raw Data**" means the initial value of analog or digital instrument output, and/or manually recorded values obtained from measurement tools or personal observation. These values are converted into reportable data (e.g., concentration, percent moisture) via automated procedures and/or manual calculations.

o. The term "**RCRA Permit**" means the Dangerous Waste Portion of the RCRA Permit for the Treatment, Storage, and Disposal of Dangerous Waste (Dangerous Waste Permit) issued by the Washington State Department of Ecology, pursuant to Chapter 70.105 RCW and Chapter 173-303 WAC, coupled with the HSWA Portion of the RCRA Permit for the Treatment, Storage, and Disposal of Hazardous Waste (HSWA Permit) issued by EPA, Region 10, pursuant to 42 U.S.C. 6901 et seq. and 40 CFR Parts 124 and 270.

p. The term "**Reasonable Times**" means normal business hours; hours during which production, treatment, storage, construction, disposal, or discharge occurs, or times when Ecology suspects a violation requiring immediate inspection.

q. The term "**Release**" means any intentional or unintentional spilling, leaking, pouring, emitting, emptying, discharging, injecting, pumping, escaping, leaching, dumping, or disposing of dangerous constituents into the environment and includes the abandonment or discarding of barrels, containers, and other receptacles containing dangerous waste or dangerous constituents, and includes any releases within the meaning of release at RCW 70.105D.020(20).

r. The term "**Significant Discrepancy**" in regard to a manifest or shipping paper, means a discrepancy between the quantity or type of dangerous waste designated on the manifest, or shipping paper, and the quantity or type of dangerous waste a TSD unit actually receives. A significant discrepancy in quantity is a variation greater than ten (10) percent in weight for bulk quantities (e.g., tanker trucks, railroad tank cars, etc.), or any variation in piece count for nonbulk quantities (i.e., any missing container or package would be a significant discrepancy). A significant discrepancy in type is an obvious physical or chemical difference which can be discovered by inspection or waste analysis (e.g., waste solvent substituted for waste acid).

s. The term "**Solid Waste Management Unit (SWMU)**" means any discernible location at the Facility where solid wastes have been placed at any time, irrespective of whether the location was intended for the management of solid or dangerous waste, and includes any area at the Facility at which solid wastes have been routinely and systematically released (for example through spills), and includes dangerous waste treatment, storage, and disposal units.

t. The term **"Unit" or "TSD unit"**, as used in Parts I through VI of this Permit, means the contiguous area of land on or in which dangerous waste is placed, or the largest area in which there is a significant likelihood of mixing dangerous waste constituents in the same area. A TSD unit, for purposes of this Permit, is a subgroup of the Facility which has been identified in a Hanford Facility Dangerous Waste Part A Form.

ACRONYMS

ALARA	As Low As Reasonably Achievable
AMSF	Alkali Metal Storage Facility
APDS	Ash Pit Demolition Site
APP	Used to Denote Appendix Page Numbers
APT	Area Process Trenches
ARAR	Applicable, Relevant, and Appropriate Requirements
BNI	Bechtel National, Inc
BPDS	Borrow Pit Demolition Site
CD/RR	Chemical Disposal/Recycle Request
CERCLA	Comprehensive Environmental Response Compensation and Liability Act of 1980 (as Amended by the Superfund Reauthorization Act of 1986)
CFR	Code of Federal Regulations
CHG	CH2M HILL Hanford Group, Inc.
CIP	Construction Inspection Plan
CLARC	Cleanup Levels and Risk Calculations
CLP	Contract Laboratory Program
COC	Chemical Contaminants of Concern
CPP	CERCLA Past Practice
USDOE-RL	U.S. Department of Energy, Richland Operations Office
USDOE-ORP	U.S. Department of Energy, Office of River Protection
DQO	Data Quality Objective
DSC	Differential Scanning Colorimetry
EC	Emergency Coordinator
Ecology	Washington State Department of Ecology
EPA	U.S. Environmental Protection Agency
ERA	Expedited Response Action
ETF	200 Area Effluent Treatment Facility
HFFACO	Hanford Federal Facility Agreement and Consent Order
FH	Fluor Hanford, Inc.
GW	Ground Water
HPADS	Hanford Patrol Academy Demolition Site
HSWA	Hazardous and Solid Waste Amendments of 1984
HWMA	Hazardous Waste Management Act
ID	Identification
IRM	Interim Remedial Measure
LDR	Land Disposal Restrictions
LERF	Liquid Effluent Retention Facility
LSFF	105-DR Large Sodium Fire Facility
MTCA	Model Toxics Control Act
OSWER	Office of Solid Waste and Emergency Response

1	PNNL	Pacific Northwest National Laboratory
2	QA	Quality Assurance
3	QAPP	Quality Assurance Project Plan
4	QC	Quality Control
5	RCRA	Resource Conservation and Recovery Act of 1976
6	RCW	Revised Code of Washington
7	ROD	Record of Decision
8	RPD	Relative Percent Difference
9	RPP	RCRA Past Practice
10	SAP	Sampling and Analysis Plan
11	SARA	Superfund Amendments and Reauthorization Act of 1986
12	SCD	Security Control Devices
13	SHLWS	Simulated High Level Waste Slurry
14	SOP	Standard Operating Procedure
15	SWMU	Solid Waste Management Unit
16	TCLP	Toxicity Characteristic Leaching Procedure
17	TSD	Treatment, Storage, and/or Disposal
18	USDOE	United States Department of Energy
19	U.S.C.	United States Code
20	WAC	Washington Administrative Code
21	WAP	Waste Analysis Plan
22	WCH	Washington Closure Hanford
23	WTP	Waste Treatment and Immobilization Plant
24	183-H	183-H Solar Evaporation Basins
25	242-A	242-A Evaporator
26	300 APT	300 Area Process Trenches
27	300 ASE	300 Area Solar Evaporator
28	303-K	303-K Storage Facility
29	305-B	305-B Storage Facility
30	325 HWTUs	325 Hazardous Waste Treatment Units
31	616-NRDWSF	616 Nonradioactive Dangerous Waste Storage Facility

PART I STANDARD CONDITIONS

I.A EFFECT OF PERMIT

I.A.1 The Permittees are authorized to treat, store, and dispose of dangerous waste in accordance with the Conditions of this Permit and in accordance with the applicable provisions of Chapter 173-303 WAC (including provisions of the Chapter as they have been applied in the HFFACO). Any treatment, storage, or disposal of dangerous waste by the Permittees at the Facility that is not authorized by this Permit, or by WAC 173-303-400 (including provisions of this regulation as they have been applied in the HFFACO), for those TSD units not subject to this Permit, and for which a Permit is required by Chapter 173-303 WAC, is prohibited.

TSD units operating or closing under interim status will maintain interim status until that TSD unit is incorporated into Part III, V, and/or VI of this Permit, or until interim status is terminated under WAC 173-303-805(8). Interim status units will be incorporated into this Permit through the Permit modification process.

I.A.2 The Conditions of this Permit will be applied to the Facility as defined by the Permit Applicability Matrix (Permit Attachment 3).

I.A.3 USDOE is responsible for activities which include, but are not limited to, the overall management and operation of the Facility.

FH is identified as a Permittee for activities subject to the Conditions of this Permit where its agents, employees, or subcontractors have operational and/or management responsibilities and control.

PNNL is identified as a Permittee for activities subject to the Conditions of this Permit where its agents, employees, or subcontractors have operational and/or management responsibilities and control.

WCH is identified as a Permittee for activities subject to the Conditions of this Permit where its agents, employees, or subcontractors have operational and/or management responsibilities and control.

CHG is identified as a Permittee for activities subject to the Conditions of this Permit where its agents, employees, or subcontractors have operational and/or management responsibilities and control.

BNI is identified as a Permittee for activities subject to the Conditions of this Permit where its agents, employees, or subcontractors have operational and/or management responsibilities and control.

I.A.4 Coordination with the HFFACO

Each TSD unit will have an application for a final status Permit or closure/post-closure plan submitted to Ecology in accordance with the schedules identified in the HFFACO Milestone M-20-00 or in accordance with WAC 173-303-830. After completion of the Permit application or closure/post-closure plan review, a final Permit decision will be made pursuant to WAC 173-303-840. Specific Conditions for each TSD unit will be incorporated into this Permit in accordance with the Class 3 Permit modification procedure identified in Permit Condition I.C.3.

I.B PERSONAL AND PROPERTY RIGHTS

This Permit does not convey property rights of any sort, or any exclusive privilege; nor does it authorize any injury to persons or property, or any invasion of other private rights, or any violation of federal, state, or local laws or regulations.

I.C PERMIT ACTIONS

I.C.1 Modification, Revocation, Reissuance, or Termination

This Permit may be modified, revoked and reissued, or terminated by Ecology for cause per WAC 173-303-810(7) as specified in WAC 173-303-830(3), (4), and (5).

I.C.2 Filing of a Request

The filing of a request for a Permit modification, or revocation and reissuance, or termination, or a notification of planned changes, or anticipated noncompliance on the part of the Permittees, will not stay any Permit condition [WAC 173-303-810(7)]except as provided in WAC 173-303-810(2) under an emergency permit.

I.C.3 Modifications

Except as provided otherwise by specific language in this Permit, the Permit modification procedures of WAC 173-303-830(2), (3), and (4) will apply to modifications or changes in design or operation of the Facility, or any modification or change in dangerous waste management practices covered by this Permit. As an exception, the Permittees will provide notifications to Ecology required by WAC 173-303-830(4)(a)(i)(A) on a quarterly basis. Each quarterly notification will be submitted within ten (10) days of the end of the quarter, and provide the required information for all such modification s put into effect during that reporting period. Quarterly reporting periods will be based upon the state Fiscal Year. For notifications required by the Permittees to persons on the facility mailing list described in WAC 173-303-830(4)(a)(i)(B), -830(4)(b)(ii), -830(4)(c)(ii), and -830(4)(e)(ii)(C), use of appropriate HFFACO Community Relations Plan publications and/or list servers for public involvement satisfy the notification requirements.

I.D SEVERABILITY

I.D.1 Effect of Invalidation

The provisions of this Permit are severable, and if any provision of this Permit, or the application of any provision of this Permit to any circumstance is contested and/or held invalid, the application of such provision to other circumstances and the remainder of this Permit will not be affected thereby. Invalidation of any state statutory or regulatory provision which forms the basis for any Condition of this Permit does not affect the validity of any other state statutory or regulatory basis for said Condition.

I.D.2 Final Resolution

In the event that a Condition of this Permit is stayed for any reason, the Permittees will continue to comply with the related applicable and relevant interim status standards in WAC 173-303-400 until final resolution of the stayed Condition, unless Ecology determines compliance with the related applicable and relevant interim status standards would be technologically incompatible with compliance with other Conditions of this Permit, which have not been stayed, or unless the HFFACO authorizes an alternative action, in which case the Permittees will comply with the HFFACO.

I.E DUTIES AND REQUIREMENTS

I.E.1 Duty to Comply

The Permittees will comply with all Conditions of this Permit, except to the extent and for the duration such noncompliance is authorized by an emergency Permit issued under WAC 173-303-804. Any Permit noncompliance other than noncompliance authorized by an emergency Permit constitutes a violation of Chapter 70.105 RCW, as amended, and is grounds for enforcement action, Permit termination, modification or revocation and reissuance of the Permit, and/or denial of a Permit renewal application.

I.E.2 Compliance Not Constituting Defense

Compliance with the terms of this Permit does not constitute a defense to any order issued or any action brought under Section 3007, 3008, 3013, or 7003 of RCRA (42 U.S.C. Sections 6927, 6928, 6934, and 6973), Section 104, 106(a) or 107 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) [42 U.S.C. Sections 9604, 9606(a), and 9607], as amended by the Superfund Amendments and Reauthorization Act of 1986 (42 U.S.C. 9601 et seq.), or any other federal, state, or local law governing protection of public health, or the environment; provided, however, that compliance with this Permit during its term constitutes compliance at those areas subject to this Permit for the purpose of enforcement with WAC 173-303-140, WAC 173-303-180, WAC 173-303-280 through -395, WAC 173-303-600 through -680, WAC 173-303-810, and WAC 173-303-830, except for Permit modification s and those requirements not included in the Permit that become effective by statute, or that are promulgated under 40 CFR Part 268 restricting the placement of dangerous waste in or on the land.

I.E.3 Duty to Reapply

If the Permittees wish to continue an activity regulated by this Permit after the expiration date of this Permit, the Permittees must apply for, and obtain a new Permit, in accordance with WAC 173-303-806(6).

I.E.4 Permit Expiration and Continuation

This Permit, and all Conditions herein, will remain in effect beyond the Permit's expiration date until the effective date of the new Permit, if the Permittees have submitted a timely, complete application for renewal per WAC 173-303-806 and, through no fault of the Permittees, Ecology has not made a final Permit determination as set forth in WAC 173-303-840.

I.E.5 Need to Halt or Reduce Activity Not a Defense

It will not be a defense in the case of an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the Conditions of this Permit.

I.E.6 Duty to Mitigate

In the event of noncompliance with the Permit, the Permittees will take all reasonable steps to minimize releases to the environment, and will carry out such measures as are reasonable to minimize or correct adverse impacts on human health and the environment.

I.E.7 Proper Operation and Maintenance

The Permittees will at all times properly operate and maintain all facilities and systems of treatment and control, which are installed or used by the Permittees, to achieve compliance with the Conditions of this Permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance/quality control procedures. This provision requires the operation of backup or auxiliary facilities, or similar systems only when necessary to achieve compliance with the Conditions of the Permit.

I.E.8 Duty to Provide Information

The Permittees will furnish to Ecology, within a reasonable time, any relevant information which Ecology may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Permit, or to determine compliance with this Permit. The Permittees will also furnish to Ecology, upon request, copies of records required to be kept by this Permit.

I.E.9 Inspection and Entry

The Permittees will allow Ecology, or authorized representatives, upon the presentation of Ecology credentials, to:

I.E.9.a During operating hours, and at all other reasonable times, enter and inspect the Facility or any unit or area within the Facility, where regulated activities are located or conducted, or where records must be kept under the Conditions of this Permit;

I.E.9.b Have access to, and copy, at reasonable times, any records that must be kept under the Conditions of this Permit;

I.E.9.c Inspect at reasonable times any portion of the Facility, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Permit; and,

I.E.9.d Sample or monitor, at reasonable times, for the purposes of assuring Permit compliance, or as otherwise authorized by state law, as amended, for substances or parameters at any location.

I.E.10 Monitoring and Records

I.E.10.a Samples and measurements taken by the Permittees for the purpose of monitoring required by this Permit will be representative of the monitored activity. Sampling methods will be in accordance with WAC 173-303-110 or 40 CFR 261, unless otherwise specified in this Permit, or agreed to in writing by Ecology. Analytical methods will be as specified in the most recently published test procedure of the documents cited in WAC 173-303-110(3)(a) through (h), unless otherwise specified in this Permit, or agreed to in writing by Ecology.

I.E.10.b The Permittees will retain at the TSD unit(s), or other locations approved by Ecology, as specified in Parts III, V, and/or VI of this Permit, records of monitoring information required for compliance with this Permit, including calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of reports and records required by this Permit, and records of data used to complete the application for this Permit for a period of at least ten (10) years from the date of the sample, measurement, report, or application, unless otherwise required for certain information by other Conditions of this Permit. This information may be retained on electronic media.

I.E.10.c The Permittees will retain at the Facility, or other approved location, records of all monitoring and maintenance records, copies of all reports and records required by this Permit, and records of all data used to complete the application for this Permit, which are not associated with a particular TSD unit, for a period of at least ten (10) years from the date of certification of completion of post-closure care, or corrective action for the Facility, whichever is later. This information may be retained on electronic media.

I.E.10.d The record retention period may be extended by request of Ecology at any time by notification, in writing, to the Permittees, and is automatically extended during the course of any unresolved enforcement action regarding this Facility to ten (10) years beyond the conclusion of the enforcement action.

Records of monitoring information shall include:

I.E.10.d.i The date, exact place and time of sampling or measurements;

I.E.10.d.ii The individual who performed the sampling or measurements and their affiliation;

I.E.10.d.iii The dates the analyses were performed;

I.E.10.d.iv The individual(s) who performed the analyses and their affiliation;

I.E.10.d.v The analytical techniques or methods used; and,

I.E.10.d.vi The results of such analyses

I.E.11 Reporting Planned Changes

The Permittees will give notice to Ecology, as soon as possible, of any planned physical alterations, or additions to the Facility subject to this Permit. Such notice does not authorize any noncompliance with, or modification of, this Permit.

I.E.12 Certification of Construction or Modification

I.E.12.a The Permittees may not commence treatment, storage, or disposal of dangerous wastes in a new or modified portion of TSD units subject to this Permit until:

I.E.12.b The Permittees have submitted to Ecology, by certified mail, overnight express mail, or hand delivery, a letter signed by the Permittees, and a registered professional engineer, stating that the TSD unit has been constructed or modified in compliance with the Conditions of this Permit; and,

I.E.12.c Ecology has inspected the modified or newly constructed TSD unit, and finds that it is in compliance with the Conditions of this Permit; or

I.E.12.d Within fifteen (15) days of the date of receipt of the Permittees' letter, the Permittees have not received notice from Ecology of its intent to inspect, prior inspection is waived, and the Permittees may commence treatment, storage, and disposal of dangerous waste.

I.E.13 Anticipated Noncompliance

The Permittees will give at least thirty (30) days advance notice to Ecology of any planned changes in the Facility subject to this Permit, or planned activity which might result in noncompliance with Permit requirements.

If thirty (30) days advance notice is not possible, then the Permittees will give notice immediately after the Permittees become aware of the anticipated noncompliance. Such notice does not authorize any noncompliance with, or modification of, this Permit.

I.E.14 Transfer of Permits

I.E.14.a This Permit may be transferred to a new owner/operator only if it is modified, or revoked and reissued, pursuant to WAC 173-303-830(3)(b). Unit-specific portion may be transferred to a new Co-operator as a Class [1]1 modification with prior approval of the Department's director.

I.E.14.b Before transferring ownership or operation of the Facility during its operating life, the owner/operator will notify the new owner/operator in writing, of the requirements of WAC 173-303-290(2), -600 and -806, and this Permit.

I.E.15 Immediate Reporting

I.E.15.a The Permittees will verbally report to Ecology any release of dangerous waste or hazardous substances, or any noncompliance with the Permit which may endanger human health or the environment. Any such information will be reported immediately after the Permittees become aware of the circumstances.

I.E.15.b The immediate verbal report will contain all the information needed to determine the nature and extent of any threat to human health and the environment, including the following:

I.E.15.b.i Name, address, and telephone number of the Permittee responsible for the release or noncompliant activity;

I.E.15.b.ii Name, location, and telephone number of the unit at which the release occurred;

I.E.15.b.iii Date, time, and type of incident;

I.E.15.b.iv Name and quantity of material(s) involved;

I.E.15.b.v The extent of injuries, if any;

I.E.15.b.vi An assessment of actual or potential hazard to the environment and human health, where this is applicable;

I.E.15.b.vii Estimated quantity of released material that resulted from the incident; and,

I.E.15.b.viii Actions which have been undertaken to mitigate the occurrence.

I.E.15.c The Permittees will report, in accordance with Permit Conditions I.E.15.a and I.E.15.b, any information concerning the release, or unpermitted discharge, of any dangerous waste or hazardous substances that may cause an endangerment to drinking water supplies, or ground or surface waters, or of a release, or discharge of dangerous waste, or hazardous substances, or of a fire or explosion at the Facility, which may threaten human health or the environment. The description of the occurrence and its cause will include all information necessary to fully evaluate the situation and to develop an appropriate course of action.

I.E.15.d For any release or noncompliance not required to be reported to Ecology immediately, a brief account must be entered within two (2) working days, into the TSD Operating Record, for a TSD unit, or into the Facility Operating Record, inspection log, or separate spill log, for non-TSD units. This account must include: the time and date of the release, the location and cause of the release, the type and quantity of material released, and a brief description of any response actions taken or planned.

I.E.15.e All releases, regardless of location of release, or quantity of release, will be controlled and mitigated, if necessary, as required by WAC 173-303-145(3).

I.E.16 Written Reporting

Within fifteen (15) days after the time the Permittees become aware of the circumstances of any noncompliance with this Permit, which may endanger human health or the environment, the Permittees will provide to Ecology a written report. The written report will contain a description of the noncompliance and its cause (including the information provided in the verbal notification); the period of noncompliance including exact dates and times; the anticipated time noncompliance is expected to continue, if the noncompliance has not been corrected; corrective measures being undertaken to mitigate the situation, and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.

I.E.17 Manifest Discrepancy Report

I.E.17.a For dangerous waste received from outside the Facility, whenever a significant discrepancy in a manifest is discovered, the Permittees will attempt to reconcile the discrepancy. If not reconciled within fifteen (15) days of discovery, the Permittees will submit a letter report in accordance with WAC 173-303-370(4), including a copy of the applicable manifest or shipping paper, to Ecology.

I.E.17.b For dangerous waste which is being transported within the Facility (i.e., shipment of on-site generated dangerous waste), whenever a significant discrepancy in the shipping papers (see Permit Condition II.Q.1) is discovered, the Permittees will attempt to reconcile the discrepancy. If not reconciled within fifteen (15) days of discovery, the Permittees will note the discrepancy in the receiving unit's Operating Record.

I.E.18 Unmanifested Waste Report

The Permittees will follow the provisions of WAC 173-303-370 for the receipt of any dangerous waste shipment from off-site. The Permittees will also submit a report in accordance with WAC 173-303-390(1) to Ecology within fifteen (15) days of receipt of any unmanifested dangerous waste shipment received from off-site sources.

I.E.19 Other Noncompliance

The Permittees will report to Ecology all instances of noncompliance, not otherwise required to be reported elsewhere in this Permit, at the time the Annual Dangerous Waste Report is submitted.

I.E.20 Other Information

Whenever the Permittees become aware that they have failed to submit any relevant facts in a Permit application, closure plan, or post-closure plan, or submitted incorrect information in a Permit application, closure plan, or post-closure plan, or in any report to Ecology, the Permittees will promptly submit such facts or corrected information.

I.E.21 Reports, Notifications, and Submissions

All written reports, notifications or other submissions, which are required by this Permit to be sent, or given to the Director or Ecology, should be sent certified mail, overnight express mail, or hand delivered, to the current address and telephone number shown below. This address and telephone number may be subject to change.

Washington State Department of Ecology
Nuclear Waste Program
3100 Port of Benton Blvd
Richland, Washington 99354
Telephone: (509) 372-7950

Telephonic and oral reports/notifications also need to be provided to Ecology's Richland Office.

Ecology will give the Permittees written notice of a change in address or telephone number. It is the responsibility of the Permittees to ensure any required reports, notifications, or other submissions are transmitted to the addressee listed in this Condition. However, the Permittees will not be responsible for ensuring verbal and written correspondence reaches a new address or telephone number until after their receipt of Ecology's written notification.

I.E.22 Annual Report

The Permittees will comply with the annual reporting requirements of WAC 173-303-390(2)(a) through (e), and (g).

I.F SIGNATORY REQUIREMENT

All applications, reports, or information submitted to Ecology, which require certification, will be signed and certified in accordance with WAC 173-303-810(12) and (13). All other reports required by this Permit and other information requested by Ecology will be signed in accordance with WAC 173-303-810(12).

I.G CONFIDENTIAL INFORMATION

The Permittees may declare as confidential any information required to be submitted by this Permit, at the time of submission, in accordance with WAC 173-303-810(15).

I.H DOCUMENTS TO BE MAINTAINED AT FACILITY SITE

The Permittees will maintain at the Facility, or some other location approved by Ecology, the following documents and amendments, revisions, and modifications to these documents: (1) This Permit and all Attachments; and (2) The Hanford Facility Operating Record.

All dangerous waste Part B permit applications, post closure permit applications, and closure plan applications are maintained in the Administrative Record located at 2440 Stevens, Room 1101, Richland, WA.

Other approved locations: (1) 700 Area, (2) Locations within the City of Richland under control of one or more of the Permittees, (3) Administrative Record locations within the Stevens Center complex, (4) Consolidated Information Center at Washington State University, Tri-Cities. (5) Archived records at the National Archives and Records Administration (NARA), Pacific Alaska Region, 6125 Sand Point Way NE, Seattle, Washington, 98115-7999.

These documents will be maintained for ten (10) years after post-closure care or corrective action for the Facility, whichever is later, has been completed and certified as complete.

PART II GENERAL FACILITY CONDITIONS

II.A FACILITY CONTINGENCY PLAN

II.A.1 The Permittees will immediately carry out applicable provisions of the *Hanford Emergency Management Plan* as provided in Permit Attachment 4, pursuant to WAC 173-303-360(2), whenever there is an incident meeting the criteria of Permit Attachment 4, Section 4.2. Enforceable portions of Permit Attachment 4, *Hanford Emergency Management Plan* (DOE/RL-94-02) are identified in Permit Attachment 4, Appendix A.

II.A.2 The Permittees will comply with the requirements of WAC 173-303-350(4), as provided in the *Hanford Emergency Management Plan* (Permit Attachment 4). The *Hanford Emergency Management Plan* provides reference to the need for unit-specific contingency documentation. Unit-specific contingency documentation for Part III TSD units is included in Part III of this Permit. Unit-specific contingency documentation for Part V and VI TSD units required by this Permit condition is maintained in the Hanford Facility Operating Record, Unit-Specific files.

II.A.3 The *Permittees* will review and amend, if necessary, the applicable portions of the *Hanford Emergency Management Plan*, as provided in Permit Attachment 4, pursuant to WAC 173-303-350(5), and in accordance with the provisions of WAC 173-303-830(4). The Permittees will be able to demonstrate how Amendments to the applicable portions are controlled. The plan will be amended within a period of time agreed upon by Ecology.

II.A.4 The Permittees will comply with the requirements of WAC 173-303-350(3) and –360(1) concerning the emergency coordinator, except the names and home telephone numbers will be on file with the single point-of-contact, phone number (509) 373-3800 or 375-2400 (for PNNL units) as described in the *Hanford Emergency Management Plan*.

II.B PREPAREDNESS AND PREVENTION

II.B.1 The Permittees will equip the Facility with the equipment specified in WAC 173-303-340(1) as specified in the *Hanford Emergency Management Plan* (Permit Attachment 4). Unit-specific preparedness and prevention provisions are included in Parts III, V, and/or VI of this Permit.

II.B.2 The Permittees will test and maintain the equipment specified in Permit Condition II.B.1 as necessary to assure proper operation in the event of emergency.

II.B.3 The Permittees will maintain access to communications or alarms pursuant to WAC 173-303-340(2), as provided in the *Hanford Emergency Management Plan* (Permit Attachment 4) and unit-specific contingency plans.

II.B.4 The Permittees will comply with WAC 173-303-340(4) and WAC 173-303-355(1) pertaining to arrangements with local authorities.

II.B.5 Based on the arrangements with local authorities required by WAC 173-303-340(4) documented in Permit Attachment 4, Table 3-1, the Permittees will maintain the Memorandums of Understanding to comply with WAC 173-303-350(4)(b). The Hanford Facility Memorandums of Understanding with local authorities provides emergency planning and coordination equivalent to submittal of the contingency plan to local authorities

II.C PERSONNEL TRAINING

II.C.1 The Permittees will conduct personnel training as required by WAC 173-303-330. The Permittees will maintain documents in accordance with WAC 173-303-330(2) and (3). Training records may be maintained in the Hanford Facility Operating Record, or on electronic data storage.

II.C.2 All Hanford Facility personnel will receive general Facility training within six (6) months of hire. This training will provide personnel with orientation of dangerous waste management activities being conducted at the Hanford Facility. This training will include:

II.C.2.a Description of emergency signals and appropriate personnel response;

II.C.2.b Identification of contacts for information regarding dangerous waste management activities;

II.C.2.c Introduction to waste minimization concepts;

II.C.2.d Identification of contact(s) for emergencies involving dangerous waste; and

II.C.2.e Familiarization with the applicable portions of the *Hanford Emergency Management Plan*.

II.C.3 Description of training plans for personnel assigned to TSD units subject to this Permit are delineated in the unit-specific Chapters in Parts III, V, and/or VI of this Permit.

II.C.4 The Permittees will provide the necessary training to non-Facility personnel (i.e., visitors, sub-contractors), as appropriate, for the locations of such personnel, and the activities that will be undertaken. At a minimum, this training will describe dangerous waste management hazards at the Facility.

II.D WASTE ANALYSIS

II.D.1 All waste analyses required by this Permit will be conducted in accordance with a written waste analysis plan (WAP), or sampling and analysis plan (SAP). Operating TSD units will have a WAP, which will be approved through incorporation of the TSD unit into Part III of this Permit. Closing TSD units, and units in post-closure, should have a SAP and, if necessary, a WAP, which will be approved through incorporation of the TSD unit into Part V and/or VI of this Permit.

II.D.2 Until a WAP is implemented in accordance with Permit Condition II.D.1., any unit(s) identified in Parts III, V, and/or VI of this Permit, without a unit-specific WAP approved by Ecology, will not treat, store, or dispose of dangerous waste, unless specified otherwise by Ecology in writing.

II.D.3 Each TSD unit WAP will include:

II.D.3.a The parameters for which each dangerous waste will be analyzed, and the rationale for selecting these parameters; (i.e., how analysis for these parameters will provide sufficient information on the waste properties to comply with WAC 173-303-300(1), (2), (3), and (4);

II.D.3.b The methods of obtaining or testing for these parameters;

II.D.3.c The methods for obtaining representative samples of wastes for analysis (representative sampling methods are discussed in WAC 173-303-110(2);

II.D.3.d The frequency with which analysis of a waste will be reviewed, or repeated, to ensure that the analysis is accurate and current;

II.D.3.e The waste analyses which generators have agreed to supply;

II.D.3.f Where applicable, the methods for meeting the additional waste analysis requirements for specific waste management methods, as specified in WAC 173-303-140(4)(b), 173-303-395(1), 173-303-630 through 173-303-670, and 40 CFR 264.1034, 264.1063, 284(a), and 268.7, for final status facilities;

II.D.3.f.i For off-site facilities, the procedures for confirming that each dangerous waste received matches the identity of the waste specified on the accompanying manifest, or shipping paper. This includes at least:

II.D.3.f.i.1 The procedure for identifying each waste movement at the Facility; and,

II.D.3.f.i.2 The method for obtaining a representative sample of the waste to be identified, if the identification method includes sampling.

II.D.3.f.ii For surface impoundments exempted from Land Disposal Restrictions (LDR) under 40 CFR 268.4(a), incorporated by reference in WAC 173-303-140(2), the procedures and schedules for:

1. The sampling of impoundment contents;
2. The analysis of test data; and
3. The annual removal of residues that are not delisted under 40 CFR 260.22, or which exhibit a characteristic of hazardous waste and either;
   a. Do not meet applicable treatment standards of 40 CFR Part 268, Subpart D; or
   b. Where no treatment standards have been established:
      i) Such residues are prohibited from land disposal under 40 CFR 268.32, or RCRA Section 3004(d); or
      ii) Such residues are prohibited from land disposal under 40 CFR 268.33(f); and

II.D.3.f.iii For off-site facilities, the procedures for confirming that each dangerous waste received matches the identity of the waste specified on the accompanying manifest, or shipping paper. This includes, at least:

II.D.3.f.i.3 The procedure for identifying each waste movement at the Facility; and

II.D.3.f.i.4 The method for obtaining a representative sample of the waste to be identified, if the identification method includes sampling.

II.D.4 Should waste analysis be required by this Permit at a location on the Facility, other than at a TSD unit, a SAP will be maintained by the Permittees, and made available upon request from Ecology. Any SAP required by this Permit, not associated with a particular TSD unit, will include the elements of Permit Conditions II.D.3.a.i through II.D.3.a.iv.

II.E QUALITY ASSURANCE/QUALITY CONTROL

II.E.1 All WAPs and SAPs required by this Permit will include a quality assurance/quality control (QA/QC) plan, or equivalent, to document all monitoring procedures to ensure that all information, data, and resulting decisions are technically sound, statistically valid, and properly documented in accordance with HFFACO Action Plan §6.5, Quality Assurance, and reported/made available in accordance with HFFACO Action Plan §9.6, Data Access and Delivery Requirements.

II.E.2 The level of QA/QC for the collection, preservation, transportation, and analysis of each sample required for implementation of this Permit may be based upon an Ecology-approved DQO for the sample. These DQOs will be approved by Ecology in writing or through incorporation of unit plans and Permits into Parts III, V, and/or VI of this Permit.

II.F GROUND WATER AND VADOSE ZONE MONITORING

The Permittees will comply with the ground water monitoring requirements of WAC 173-303-645. This Condition will apply only to those wells the Permittees use for the ground water monitoring programs applicable to the TSD units incorporated into Parts III, V, and/or VI of this Permit. Where releases from TSD units subject to this Permit have been documented or confirmed by investigation, or where vadose zone monitoring is proposed for integration with ground water monitoring, the Permittees will evaluate the applicability of vadose zone monitoring. The Permittees will consult with Ecology regarding the implementation of these requirements. If agreed to by Ecology, integration of ground water and vadose zone monitoring, for reasons other than this Permit, may be accommodated by this Permit. Results from other investigation activities will be used whenever possible to supplement and/or replace sampling required by this Permit.

II.F.1 Purgewater Management

Purgewater will be handled in accordance with the requirements set forth in Permit Attachment 5, *Purgewater Management Plan*.

II.F.2 Well Remediation and Abandonment

II.F.2.a The Permittees will inspect the integrity of active resource protection wells as defined by WAC 173-160-030, subject to this Permit, at least once every five (5) years. These inspections will be recorded in the Operating Record. The Permittees will prepare and maintain a plan and schedule by January 26, 1995, specifying the schedule and technical standards for this program. The Permittees will provide a copy of this plan upon the request of Ecology.

II.F.2.b The Permittees will evaluate resource protection wells subject to this Permit according to Sections 4.0 and 5.0 of the *Hanford Well Maintenance Inspection Plan* (Permit Attachment 6) and the *Policy on Remediation of Existing Wells and Acceptance Criteria for RCRA and CERCLA*, June 1990 (Permit Attachment 7), to determine if a well has a potential use as a qualified well. The Permittees will abandon or remediate unusable wells according to the requirements of Chapter 18.104 RCW, Chapter 173-160 WAC, and Chapter 173-162 WAC to ensure that the integrity of wells subject to this Permit is maintained. The time for this remediation will be specified in Parts III, V, and/or VI of this Permit.

II.F.2.c Ecology will receive notice in writing at least seventy-two (72) hours before the Permittees remediate (excluding maintenance activities), or abandon any well subject to this Permit.

II.F.2.d For wells subject to this Permit, the Permittees will achieve full compliance with Chapter 173-160 WAC and Chapter 18.104 RCW consistent with a rolling five (5) year schedule agreed to by Ecology and the Permittees. This process will be completed by the year 2012.

II.F.3 Well Construction

All wells constructed pursuant to this Permit will be constructed in compliance with Chapter 173-160 WAC.

II.G SITING CRITERIA

The Permittees will comply with the applicable notice of intent and siting criteria of WAC 173-303-281 and WAC 173-303-282, respectively.

II.H RECORDKEEPING AND REPORTING

The provisions of WAC 173-303-620 are not applicable to the Hanford Facility because the USDOE is both owner and operator of the Hanford Facility. WAC 173-303-620(1)(c).

II.I FACILITY OPERATING RECORD

II.I.1 The Permittees will maintain a written Facility Operating Record until ten (10) years after post-closure, or corrective action is complete and certified for the Facility, whichever is later. Except as specifically provided otherwise in this Permit, the Permittees will also record all information referenced in this Permit in the Facility Operating Record within seven (7) working days after the information becomes available. A TSD unit-specific Operating Record will be maintained for each TSD unit at a location identified in Parts III, V, and VI of this Permit. This information may be maintained on electronic media. Each TSD unit-specific Operating Record will be included by reference in the Facility Operating Record. Information required in each TSD unit-specific Operating Record is identified on a unit-by-unit basis in Part III, V, or VI of this Permit. The Facility Operating Record will include, but not be limited to, the following information.

II.I.1.a A description of the system(s) currently utilized to identify and map solid waste management units and their locations. The description of the system(s) is required to include an identification of on-site access to the system's data, and an on-site contact name and telephone number. In addition to, or as part of, this system(s), the Permittees will also maintain a list identifying active ninety (90)-day waste storage areas, and dangerous waste satellite accumulation areas and their locations. The list will identify the location, the predominant waste types managed at the area, and a date identifying when the list was compiled. Maps will be provided by the Permittees upon request by Ecology;

II.I.1.b Records and results of waste analyses required by WAC 173-303-300;

II.I.1.c An identification of the system(s) currently utilized to generate Occurrence Reports. The identification of the system(s) is required to include a description, an identification of an on-site location of hard-copy Occurrence Reports, an identification of on-site access to the system's data, and an on-site contact name and telephone number;

II.I.1.d Copies of all unmanifested waste reports;

II.I.1.e The *Hanford Emergency Management Plan*, as well as summary reports, and details of all incidents that require implementing the contingency plan, as specified in WAC 173-303-360(2)(k);

II.I.1.f An identification of the system(s) currently utilized and being developed to record personnel training records and to develop training plans. The identification of the system(s) is required to include a description, an identification of on-site access to the system's data, and an on-site contact name and telephone number;

II.I.1.g Preparedness and prevention arrangements made pursuant to WAC 173-303-340(4) and documentation of refusal by state or local authorities that have declined to enter into agreements in accordance with WAC 173-303-340(5);

II.I.1.h Reserved Condition;

II.I.1.i Reserved Condition;

II.I.1.j Documentation (e.g., waste profile sheets) of all dangerous waste transported to or from any TSD unit subject to this Permit. This documentation will be maintained in the receiving unit's Operating Record from the time the waste is received;

II.I.1.k An identification of the system(s) currently utilized to cross-reference waste locations to specific manifest document numbers. The identification of the system(s) is required to include a thorough description, an identification of an on-site location of a hard-copy data report, an identification of on-site access to the system's data, and an on-site contact name and telephone number;

II.I.1.l Reserved Condition;

II.I.1.m Annual Reports required by this Permit;

II.I.1.n An identification of all systems currently utilized to record monitoring information, including all calibration and maintenance records, and all original strip chart recordings for continuous monitoring instrumentation. The identification of systems will include a description of the systems. The descriptions will include a confirmation that the criteria of Permit Condition I.E.10.e is provided by the utilization of the system. The identification of the systems will also include an identification of on-site access to the system's data, an on-site contact name and telephone number;

II.I.1.o Reserved Condition;

II.I.1.p Summaries of all records of ground water corrective action required by WAC 173-303-645;

II.I.1.q An identification of the system(s) currently being utilized and being developed to evaluate compliance with the Conditions of this Permit and with Chapter 173-303 WAC. The identification of the system(s) will include a description of the system(s), an identification of on-site access to the system's data, and an on-site contact name and telephone number. The description of the system(s) will also include a definition of which portion(s) of the system(s) is accessible to Ecology;

II.I.1.r All deed notifications required by this Permit (to be included by reference);

II.I.1.s All inspection reports required by this Permit; and

II.I.1.t All other reports as required by this Permit, including design change documentation and nonconformance documentation.

II.J FACILITY CLOSURE

II.J.1 Final closure of the Hanford Facility will be achieved when closure activities for all TSD units have been completed, as specified in Parts III, IV, V, or VI of this Permit. Completion of these activities will be documented using either certifications of closure, in accordance with WAC 173-303-610(6), or certifications of completion of post-closure care, in accordance with WAC 173-303-610(11).

II.J.2 The Permittees will close all TSD units as specified in Parts III, V, and/or VI of this Permit.

II.J.3 The Permittees will submit a written notification of, or request for, a Permit modification in accordance with the provisions of WAC 173-303-610(3)(b), whenever there is a change in operating plans, facility design, or the approved closure plan. The written notification or request must include a copy of the amended closure plan for review, or approval, by Ecology.

II.J.4 The Permittees will close the Facility in a manner that:

II.J.4.a Minimizes the need for further maintenance;

II.J.4.b Controls, minimizes or eliminates, to the extent necessary to protect human health and the environment, post-closure escape of dangerous waste, dangerous constituents, leachate, contaminated run-off, or dangerous waste decomposition products, to the ground, surface water, ground water, or the atmosphere; and

II.J.4.c Returns the land to the appearance and use of surrounding land areas to the degree possible, given the nature of the previous dangerous waste activity.

II.J.4.d Meets the requirements of WAC 173-303-610(2)(b).

II.K SOIL/GROUND WATER CLOSURE PERFORMANCE STANDARDS

II.K.1 For purposes of Permit Condition II.K, the term "clean closure" shall mean the status of a TSD unit at the Facility which has been closed to the cleanup levels prescribed by WAC 173-303-610(2)(b), provided certification of such closure has been accepted by Ecology.

II.K.2 The Permittees may close a TSD unit to background levels as defined in Ecology approved Hanford Site Background Documents, if background concentrations exceed the levels prescribed by Permit Condition II.K.1. Closure to these levels, provided the Permittees comply with all other closure requirements for a TSD unit as identified in Parts III, V, and/or VI of this Permit, shall be deemed as "clean closure".

II.K.3 Except for those TSD units identified in Permit Conditions II.K.1, II.K.2, or II.K.4, the Permittees may close a TSD unit to a cleanup level specified under Method C of Chapter 173-340 WAC. Closure of a TSD unit to these levels, provided the Permittees comply with all other closure requirements for the TSD unit as specified in Parts III, V, and/or VI of the Permit, and provided the Permittees comply with Permit Conditions II.K.3.a through II.K.3.c, shall be deemed as a "modified closure".

II.K.3.a For "modified closures", the Permittees shall provide institutional controls in accordance with WAC 173-340-440 which restricts access to the TSD unit for a minimum of five (5) years following completion of closure. The specific details and duration of institutional controls shall be specified in Parts III, V, and/or VI of this Permit for a particular TSD unit.

II.K.3.b For "modified closures", the Permittees shall provide periodic assessments of the TSD unit to determine the effectiveness of the closure. The specific details of the periodic assessments shall be specified in Parts III, V, and/or VI of this Permit. The periodic assessments shall include, as a minimum, a compliance monitoring plan in accordance with WAC 173-340-410 that will address the assessment requirements on a unit-by-unit basis. At least one (1) assessment activity shall take place after a period of five (5) years from the completion of closure, which will demonstrate whether the soils and ground water have been maintained at or below the allowed concentrations as specified in Parts III, V, or VI of this Permit. Should the required assessment activities identify contamination above the allowable limits as specified in Parts III, V, and/or VI, the TSD unit must be further remediated, or the requirements of II.K.4. must be followed. Should the required assessment activities demonstrate that contamination has diminished, or remained the same, the Permittees may request that Ecology reduce, or eliminate the assessment activities and/or institutional controls.

II.K.3.c For "modified closures", the Permittees shall specify the particular activities required by this Condition in a Post-Closure Permit application.

II.K.4 Any TSD unit for which Permit Conditions II.K.1, II.K.2, or II.K.3, are not chosen as the closure option, closing the TSD unit as a landfill may be selected. Closure and post-closure of the TSD unit as a landfill, must follow the procedures and requirements specified in WAC 173-303-610.

II.K.5 The cleanup option selected shall be specified in Parts III, V, and/or VI of this Permit, and shall be chosen with consideration of the potential future site use for that TSD unit/area. Definitions contained within Chapter 173-340 WAC shall apply to Permit Condition II.K. Where definitions are not otherwise provided by this Permit, the HFFACO, or Chapter 173-303 WAC.

II.K.6 Deviations from a TSD unit closure plan required by unforeseen circumstances encountered during closure activities, which do not impact the overall closure strategy, but provide equivalent results, shall be documented in the TSD unit-specific Operating Record and made available to Ecology upon request, or during the course of an inspection.

II.K.7 Where agreed to by Ecology, integration of other statutorily or regulatory mandated cleanups may be accommodated by this Permit. Results from other cleanup investigation activities shall be used whenever possible to supplement and/or replace TSD unit closure investigation activities. All, or appropriate parts of, multipurpose cleanup and closure documents can be incorporated into this Permit through the Permit modification process. Cleanup and closures conducted under any statutory authority, with oversight by either Ecology or the EPA, which meet the equivalent of the technical requirements of Permit Conditions II.K.1 through II.K.4, may be considered as satisfying the requirements of this Permit.

II.L DESIGN AND OPERATION OF THE FACILITY

II.L.1 Proper Design and Construction

The Permittees will design, construct, maintain, and operate the Facility to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous substances to air, soil, ground water, or surface water, which could threaten human health, or the environment.

II.L.2 Design Changes, Nonconformance, and As-Built Drawings

II.L.2.a After completing the Permit modification process in Permit Condition I.C.3, the Permittees will conduct all construction subject to this Permit in accordance with the approved designs, plans and specifications that are required by this Permit, unless authorized otherwise in Permit Conditions II.L.2.b or II.L.2.c. For purposes of Permit Conditions II.L.2.b and II.L.2.c, an Ecology construction inspector, or TSD unit manager, are designated representatives of Ecology.

II.L.2.b During construction of a project subject to this Permit, changes to the approved designs, plans and specifications will be formally documented. All design change documentation will be maintained in the TSD unit-specific Operating Record and will be made available to Ecology upon request or during the course of an inspection. The Permittees will provide copies of design change documentation affecting any critical system to Ecology within five (5) working days of initiating the design change documentation. Identification of critical systems will be included by the Permittees in each TSD unit-specific dangerous waste Permit application, closure plan or Permit modification, as appropriate. Ecology will review an design change documentation modifying a critical system, and inform the Permittees in writing within two (2) working days, whether the proposed design change documentation , when issued, will require a Class 1, 2, or 3

Permit modification. If after two (2) working days Ecology has not responded, it will be deemed as acceptance of the design change documentation by Ecology.

II.L.2.c During construction of a project subject to this Permit, any work completed which does not meet or exceed the standards of the approved design, plans and specifications will be formally documented with nonconformance documentation. All nonconformance documentation will be maintained in the TSD unit-specific Operating Record and will be made available to Ecology upon request, or during the course of an inspection. The Permittees will provide copies of nonconformance documentation affecting any critical system to Ecology within five (5) working days after identification of the nonconformance. Ecology will review nonconformance documentation affecting a critical system and inform the Permittees in writing, within two (2) working days, whether a Permit modification is required for any nonconformance, and whether prior approval is required from Ecology before work proceeds, which affects the nonconforming item. If Ecology does not respond within two (2) working days, it will be deemed as acceptance and no Permit modification will be required.

II.L.2.d Upon completion of a construction project subject to this Permit, the Permittees will produce as-built drawings of the project which incorporate the design and construction modifications resulting from all project design change documentation and nonconformance documentation, as well as modifications made pursuant to WAC 173-303-830. The Permittees will place the drawings into the Operating Record within twelve (12) months of completing construction, or within an alternate period of time specified in a unit-specific Permit Condition in Part III or V of this Permit.

II.L.2.e Facility Compliance

The Permittees in receiving, storing, transferring, handling, treating, processing, and disposing of dangerous waste, will design, operate, and/or maintain the Facility in compliance with all applicable federal, state, and local laws and regulations.

II.M SECURITY

The Permittees will comply with the security provisions of WAC 173-303-310. The Permittees may comply with the requirements of WAC 173-303-310(2) on a unit-by-unit basis.

II.N RECEIPT OF DANGEROUS WASTES GENERATED OFF-SITE

II.N.1 Receipt of Off-Site Waste

The Permittees will comply with Permit Conditions II.N.2 and II.N.3 for any dangerous wastes which are received from sources outside the United States, or from off-site generators.

II.N.2 Waste from Sources Outside the United States

The Permittees will meet the requirements of WAC 173-303-290(1) for waste received from outside the United States.

II.N.3 Notice to Generator

For waste received from off-site sources (except where the owner/operator is also the generator), the Permittees will inform the generator in writing that they have the appropriate Permits for, and will accept, the waste the generator is shipping, as required by WAC 173-303-290(3). The Permittees will keep a copy of this written notice as part of the TSD unit-specific Operating Record.

II.O GENERAL INSPECTION REQUIREMENTS

II.O.1 The Permittees will inspect the Facility to prevent malfunctions and deterioration, operator errors, and discharges, which may cause or lead to the release of dangerous waste constituents to the environment, or threaten human health. Inspections must be conducted in accordance with the provisions of WAC 173-303-320(2). In addition to the TSD unit inspections specified in Parts III, V, and/or VI, the following inspections will also be conducted:

II.O.1.a The 100, 200 East, 200 West, 300, and 400 areas will be inspected annually.

II.O.1.b The Permittees will inspect the banks of the Columbia River, contained within the Facility boundary, once a year. The inspection will be performed from the river, by boat, and the inspectors will follow the criteria in Permit Condition II.O.1.c.

II.O.1.c The Permittees will visually inspect the areas identified in Permit Conditions II.O.1.a and II.O.1.b for malfunctions, deterioration, operator errors, and discharges which may cause or lead to the release of dangerous waste constituents to the environment, or that threaten human health. Specific items to be noted are as follows:

II.O.1.c.i Remains of waste containers, labels, or other waste management equipment;

II.O.1.c.ii Solid waste disposal sites not previously identified for remedial action;

II.O.1.c.iii Uncontrolled waste containers (e.g., orphan drums);

II.O.1.c.iv Temporary or permanent activities that could generate an uncontrolled waste form; and

II.O.1.c.v Unpermitted waste discharges.

II.O.1.d The Permittees will notify Ecology at least seven (7) days prior to conducting these inspections in order to allow representatives of Ecology to be present during the inspections.

II.O.2 If the inspection by the Permittees, conducted pursuant to Permit Condition II.O.1, reveals any problems, the Permittees will take remedial action on a schedule agreed to by Ecology.

II.O.3 The inspection of high radiation areas will be addressed on a case-by-case basis in either Part III of this Permit, or prior to the inspections required in Permit Condition II.O.1.

II.P MANIFEST SYSTEM

II.P.1 The Permittees will comply with the manifest requirements of WAC 173-303-370 for waste received from off-site and WAC 173-303-180 for waste shipped off-site.

II.P.2 Transportation of dangerous wastes along roadways, if such routes are not closed to general public access at the time of transport, can be manifested pursuant to an alternate tracking system as allowed by WAC 173-303-180(6). The alternate tracking system can be a paper system or an electronic system. The roadways addressed by this condition are a public or private right-of-way within or along the border of contiguous property where the movement is under control of the USDOE. The alternate tracking system will consist of documentation between the offering Hanford Facility location and the receiving Hanford Facility location containing the following information:

II.P.2.a Hanford Facility offeror name, location, and telephone number;

II.P.2.b Hanford Facility receiver name, location, and telephone number;

II.P.2.c Description of waste;

II.P.2.d Number and type of containers;

II.P.2.e Total quantity of waste;

II.P.2.f Unit volume/weight;

II.P.2.g Dangerous waste number(s) or U.S. Department of Transportation hazard class; and

II.P.2.h Special handling instructions including emergency contacts.

II.P.3 The Hanford Facility offeror and receiver will resolve any discrepancies of information found related to Permit Conditions II.P.2.a through II.P.2.h.

II.P.4 If the discrepancies cannot be resolved at the Hanford Facility receiving location, a new Hanford Facility receiver location will be agreed upon, or the dangerous waste will be returned to the offeror location. The documentation accompanying the movement of dangerous waste will be updated to reflect the new receiving location.

II.Q ON-SITE TRANSPORTATION

II.Q.1 Documentation must accompany any on-site dangerous waste which is transported to or from any TSD unit subject to this Permit, through or within the 600 Area, unless the roadway is closed to general public access at the time of shipment. Waste transported by rail or by pipeline is exempt from this Condition. This documentation will include the following information, unless other unit-specified provisions are designated in Part III or V of this Permit:

II.Q.1.a Generator's name, location, and telephone number;

II.Q.1.b Receiving TSD unit's name, location, and telephone number;

II.Q.1.c Description of waste;

II.Q.1.d Number and type of containers;

II.Q.1.e Total quantity of waste;

II.Q.1.f Unit volume/weight;

II.Q.1.g Dangerous waste number(s); and

II.Q.1.h Any special handling instructions.

II.Q.2 All non-containerized solid, dangerous waste transported to or from TSD units, subject to this Permit, will be covered to minimize the potential for material to escape during transport.

II.R EQUIVALENT MATERIALS

II.R.1 The Permittees may substitute an equivalent or superior product for any equipment or materials specified in this Permit. Use of equivalent or superior products will not be considered a modification of this Permit. A substitution will not be considered equivalent unless it is at least as effective as the original equipment or materials in protecting human health and the environment.

II.R.2 The Permittees will place in the Operating Record (within seven [7] days after the change is put into effect) the substitution documentation, accompanied by a narrative explanation, and the date the substitution became effective. Ecology may judge the soundness of the substitution.

II.R.3 If Ecology determines that a substitution was not equivalent to the original, it will notify the Permittees that the Permittees' claim of equivalency has been denied, of the reasons for the denial, and that the original material or equipment must be used. If the product substitution is denied, the Permittees will comply with the original approved product specification, or find an acceptable substitution.

II.S LAND DISPOSAL RESTRICTIONS (LDR)

Unless specifically identified otherwise in the HFFACO, the Permittees will comply with all LDR requirements as set forth in WAC 173-303-140.

II.T ACCESS AND INFORMATION

To the extent that work required by this Permit must be done on property not owned or controlled by the Permittees, the Permittees must utilize their best efforts to obtain access and information at these locations.

II.U MAPPING OF UNDERGROUND PIPING

II.U.1 Reserved.

II.U.2 Reserved.

II.U.3 The Permittees will maintain piping maps for existing, newly identified, and/or new dangerous waste underground pipelines (including active, inactive, and abandoned pipelines, which contain or contained dangerous waste subject to the provisions of Chapter 173-303 WAC) at the Hanford Facility. The maps will identify the origin, destination, direction of flow, size, depth and type (i.e., reinforced concrete, stainless steel, cast iron, etc.), of each pipe, and the location of their diversion boxes, valve pits, seal pots, catch tanks, receiver tanks, and pumps, and utilize Washington State Plane Coordinates, NAD 83(91), meters. If the type of pipe material is not documented on existing drawings, the most probable material type will be provided. The maps will also identify whether the pipe is active, inactive, or abandoned. The age of all pipes requiring identification pursuant to this Condition will be documented in an Attachment to the submittal. If the age cannot be documented, an estimate of the age of the pipe will be provided based upon best engineering judgment. These maps need not include the pipes within a fenced tank farm or within a building/structure. These maps will be compiled using documented QA/QC control methods and procedures outlined in DOE/RL-96-50, Hanford Facility RCRA Permit Mapping and Marking of Dangerous Waste Underground Pipelines Report, September 1996. These maps and any Attachments will be maintained in the Facility Operating Record and be updated annually as required by Permit Condition II.U.4.

II.U.4 Permittees will maintain current all maps required by Permit Condition II.U.3. These maps will be updated to incorporate new or revised information available by March 30th of each year. By September 30th of each year, the Permittees will submit to Ecology a list of maps that have been updated. The updated maps (including any Attachments) and the annual list submitted to Ecology will be maintained in the Facility Operating Record.

II.V MARKING OF UNDERGROUND PIPING

The Permittees will maintain marking of underground pipelines located outside the 200 East, 200 West, 300, 400, 100N, and 100K Areas. These pipelines will be marked at the point they pass beneath an area fence, at their origin and destination, at any point they cross an improved road, and every 100 meters along the pipeline corridor where practicable. The markers will be labeled with a sign that reads "Buried Dangerous Waste Pipe" and will be visible from a distance of fifteen (15) meters.

II.W OTHER PERMITS AND/OR APPROVALS

II.W.1 The Permittees will be responsible for obtaining all other applicable federal, state, and local permits authorizing the development and operation of the Facility. To the extent that work required by this Permit must be done under a permit and/or approval pursuant to other regulatory authority, the Permittees will use their best efforts to obtain such permits.

II.W.2 All other permits related to dangerous waste management activities are severable and enforceable through the permitting authority under which they are issued.

II.W.3 All air emissions from units subject to this Permit will comply with all applicable state and federal regulations pertaining to air emission controls, including but not limited to, Chapter 173-400 WAC, General Regulations for Air Pollution Sources; Chapter 173-460 WAC, Controls for New Sources of Toxic Air Pollutants; and Chapter 173-480 WAC, Ambient Air Quality Standards and Emission Limits for Radionuclides.

II.X SCHEDULE EXTENSIONS

II.X.1 The Permittees will notify Ecology in writing, as soon as possible, of any deviations or expected deviations, from the schedules of this Permit. The Permittees will include with the notification all information supporting their claim that they have used best efforts to meet the required schedules. If Ecology determines that the Permittees have made best efforts to meet the schedules of this Permit, Ecology will notify the Permittees in writing by certified mail, that the Permittees have been granted an extension. Such an extension will not require a Permit modification under Permit Condition I.C.3. Should Ecology determine that the Permittees have not made best efforts to meet the schedules of this Permit, Ecology may take such action as deemed necessary.

Copies of all correspondence regarding schedule extensions will be kept in the Operating Record.

II.X.2 Any schedule extension granted through the approved change control process identified in the HFFACO will be incorporated into this Permit. Such a revision will not require a Permit modification under Permit Condition I.C.3.

II.Y CORRECTIVE ACTION

In accordance with WAC 173-303-646 and WAC 173-303-815(2)(b)(ii), the Permittee must conduct corrective action, as necessary to protect human health and the environment, for releases of dangerous waste and dangerous constituents from solid waste management units and areas of concern at the facility, including releases that have migrated beyond the facility boundary. The Permittee may be required to implement measures within the facility to address releases, which have migrated beyond the facility's boundary. As specified in Permit Conditions II.Y.1.g, II.Y.2.a.iii, and II.Y.2.a.ii, the Permittee's right to challenge Ecology's authority to impose corrective action with respect to radionuclides, CERCLA Past Practice (CPP) Units (as identified under Permit Condition II.Y.2.a.) and selected solid waste management units not covered by the HFFACO at property currently subleased to US Ecology, Inc. (as identified under Permit Condition II.Y.3.a.i), is reserved until such time as Ecology chooses to impose corrective action in accordance with the Permit modification procedures of WAC 173-303-830.

II.Y.1 Compliance with Chapter 173-340 WAC

In accordance with WAC 173-303-646, the Permittee must conduct corrective action "as necessary to protect human health and the environment". To ensure that corrective action will be conducted as necessary to protect human health and the environment, except as provided in Permit Condition II.Y.2, the Permittee must conduct corrective action in a manner that complies with the following provisions of Chapter 173-340 WAC:

II.Y.1.a As necessary to select a cleanup action in accordance with WAC 173-340-360 and WAC 173-340-350 State Remedial Investigation and Feasibility Study;

II.Y.1.b WAC 173-340-360 Selection of Cleanup Actions;

II.Y.1.c WAC 173-340-400 Cleanup Actions;

II.Y.1.d WAC 173-340-410 Compliance Monitoring Requirements;

II.Y.1.e WAC 173-340-420 Periodic Site Reviews;

II.Y.1.f WAC 173-340-440 Institutional Controls; and

II.Y.1.g WAC 173-340-700 through -760 Cleanup Standards, except that to the extent that Ecology seeks to impose corrective action with respect to radionuclides regulated under the provisions of the Atomic Energy Act, as amended, 42 U.S.C. § 2011 et seq (AEA), the Permittee may challenge Ecology's authority to impose such corrective action through a timely appeal of the permit modification issued by Ecology without argument from Ecology that such right has been waived by a failure to fully litigate that issue through an appeal taken within thirty (30) days of the issuance of this permit, and without argument from the Permittee that such requirement fails to satisfy a cause for Permit modification under WAC 173-303-830(3)(a).

II.Y.2 Acceptance of Work Under Other Authorities or Programs and Integration with the HFFACO.

Corrective action is necessary to protect human health and the environment for all units identified in Appendix B and Appendix C of the HFFACO. Notwithstanding Permit Condition II.Y.1, work under other cleanup authorities or programs, including work under the HFFACO, may be used to satisfy corrective action requirements, provided it protects human health and the environment.

II.Y.2.a For units identified in Appendix C of the HFFACO, as amended, as CERCLA Past Practice (CPP) Units, Ecology accepts work under the HFFACO, as amended, and under the CERCLA program, as satisfying corrective action requirements to the extent provided for in, and subject to the reservations and requirements of, Permit Conditions II.Y.2.a.i through II.Y.2.a.iv.

II.Y.2.a.i For any unit identified in Appendix C of the HFFACO as a CPP unit, the Permittee must comply with the requirements and schedules related to investigation and cleanup of the CPP unit(s) developed and approved under the HFFACO, as amended. The requirements and schedules related to investigation and cleanup of CPP units currently in place under the HFFACO, as amended, and in the future developed and approved under the FFAOC, as amended, are incorporated into this Permit by this reference and apply under this Permit as if they were fully set forth herein. If the Permittee is not in compliance with requirements of the HFFACO, as amended, that relate to investigation or cleanup of CPP unit(s), Ecology may take action to independently enforce the requirements as corrective action requirements under this Permit.

II.Y.2.a.ii For any unit identified in Appendix C of the HFFACO as a CPP unit, in the case of an interim ROD, a final decision about satisfaction of corrective action requirements will be made in the context of issuance of a final ROD.

II.Y.2.a.iii If EPA and Ecology, after exhausting the dispute resolution process under Section XXVI of the HFFACO, cannot agree on requirements related to investigation or cleanup of CPP unit(s), Ecology will notify the Permittee, in writing, of the disagreement and impose, in accordance with the Permit Modification Procedures of WAC 173-303-830, a requirement for the Permittee to conduct corrective action for the subject units(s) in accordance with Permit Condition II.Y.1. The Permittee may challenge Ecology's authority to impose such corrective action requirements through a timely appeal of such permit modification, without argument from Ecology that the Permittee's right to raise such challenge has been waived by a failure to fully litigate that issue through an appeal taken within thirty (30) days of the issuance of this permit, and without argument from the Permittee that such requirement fails to satisfy a cause for Permit modification under WAC 173-303-830(3)(a). Within sixty (60) days of receipt of the above permit modification, or within some other reasonable period of time agreed to by Ecology and the Permittee, the Permittee must submit for Ecology review and approval, a plan to conduct corrective action in accordance with Permit Condition II.Y.1 for the subject unit(s). The Permittee's plan may include a request that Ecology evaluate work under another authority or program. Approved corrective action plans under this Condition will be incorporated into this Permit in accordance with the Permit Modification Procedures of WAC 173-303-830.

II.Y.2.a.iv The Permittee must maintain information on corrective action for CPP units covered by the HFFACO in accordance with the HFFACO Action Plan §9.0 and §10.0. In addition, the Permittee must maintain all reports and other information developed in whole, or in part, to implement the requirements of Permit Condition II.Y.2.a, including reports of investigations and all raw data, in the Facility Operating Record in accordance with Permit Condition II.I. Information that is maintained in the Hanford Site Administrative Record may be incorporated by reference into the Facility Operating Record.

II.Y.2.b For units identified in Appendix C of the HFFACO, as amended, as RPP units, Ecology accepts work under the HFFACO, as amended, as satisfying corrective action requirements to the extent provided for, and subject to the reservations and requirements of, Permit Conditions II.Y.2.b.i through II.Y.2.b.iv.

II.Y.2.b.i For any unit identified in Appendix C of the HFFACO, as amended, as RPP unit, until a Permit modification is complete under Permit Condition II.Y.2.b.iii., the Permittee must comply with the requirements and schedules related to investigation and cleanup of RPP units developed and approved under the HFFACO, as amended. The requirements and schedules related to investigation and cleanup of RPP units currently in place under the HFFACO, as amended, and in the future developed and approved under the HFFACO, as amended, are incorporated into this Permit by this reference and apply under this Permit as if they were fully set forth herein. Until a permit modification is complete under Permit Condition II.Y.2.b.iii, if the Permittee is not in compliance with requirements and schedules related to investigation and cleanup of RPP units developed and approved under the HFFACO, as amended, Ecology may take action to independently enforce the requirements as corrective action requirements under this Permit.

II.Y.2.b.ii When the Permittee submits a corrective measures study for an individual RPP unit or a group of RPP units, the Permittee must, at the same time, recommend a remedy for the unit(s). The remedy recommendation must contain all the elements of a draft cleanup action plan under WAC 173-340-360(10).

II.Y.2.b.iii After considering the Permittees' corrective measures study and remedy recommendation, Ecology will make a tentative remedy selection decision and publish the decision for public review and comment. Public review and comment may be accomplished by publishing the tentative decision as a draft Permit under WAC 173-303-840(10), or by a method that provides an equivalent opportunity for public review and participation. Following public review and comment, Ecology will make a final remedy selection decision. Final remedy decisions will be incorporated into the Permit using the Permit Modification Procedures of WAC 173-303-830.

II.Y.2.b.iv The Permittee must maintain information on corrective action for RPP units covered by the HFFACO, as amended, in accordance with HFFACO Action Plan §9.0 and §10.0. In addition, the Permittee must maintain all reports and other information developed in whole, or in part, to implement the requirements of Permit Condition II.Y.2.b, including reports of investigations and all raw data, in the Facility Operating Record in accordance with Permit Condition II.I. Information that is maintained in the Hanford Site Administrative Record may be incorporated into the Facility Operating Record by reference.

II.Y.2.c For each TSD unit or group of units, when the Permittee submits a certification of closure or a certification of completion of post-closure care, or at an earlier time agreed to by Ecology and the Permittee, the Permittee must, at the same time, either:

II.Y.2.c.i Document that the activities completed under closure and/or post-closure satisfy the requirements for corrective action; or

II.Y.2.c.ii If the activities completed under closure and/or post-closure care do not satisfy corrective action requirements, identify the remaining corrective action requirements and the schedule under which they will be satisfied, if remaining corrective action requirements will be satisfied by work developed and carried out under the HFFACO provisions for RPP units or CPP units, a reference to the appropriate RPP or CPP process and schedule will suffice.

II.Y.2.c.iii Ecology will make final decisions as to whether the work completed under closure and/or post-closure care satisfies corrective action, specify any unit-specific corrective action requirements, and incorporate the decision into this Permit in accordance with the Permit Modification Procedures of WAC 173-303-830.

II.Y.2.d Notwithstanding any other condition in this Permit, Ecology may directly exercise any administrative or judicial remedy under the following circumstances:

II.Y.2.d.i Any discharge or release of dangerous waste, or dangerous constituents, which are not addressed by the HFFACO, as amended;

II.Y.2.d.ii Discovery of new information regarding dangerous constituents or dangerous waste management, including but not limited to, information about releases of dangerous waste or dangerous constituents which are not addressed under the HFFACO, as amended; or

II.Y.2.d.iii A determination that action beyond the terms of the HFFACO, as amended, is necessary to abate an imminent and substantial endangerment to the public health, or welfare, or to the environment.

II.Y.3 Releases of Dangerous Waste or Dangerous Constituents Not Covered By the HFFACO

II.Y.3.a US Ecology

II.Y.3.a.i The following solid waste management units are not covered by the HFFACO:

A. US Ecology, Inc., SWMU 1: Chemical Trench;

B. US Ecology, Inc., SWMU 2-13: Low-level radioactive waste trenches 1 through 11A; and

C. US Ecology, Inc., SWMU 17: Underground resin tank.

II.Y.3.a.ii Selected solid waste management units identified in Permit Condition II.Y.3.a.i are currently being investigated by US Ecology in accordance with the Comprehensive Investigation US Ecology – Hanford Operations Workplan. Following completion of this investigation and any closure required of such solid waste management unit under the authority of the Washington State Department of Health, or within one (1) year of the effective date of this Permit Condition, whichever is earlier, Ecology will make a tentative decision as to whether additional investigation or cleanup is necessary to protect human health or the environment for the solid waste management units identified in Permit Condition II.Y.3.a.i, and publish that decision as a draft permit in accordance with WAC 173-303-840(10). Following the associated public comment period, and consideration of any public comments received during the public comment period, Ecology will publish as final permit conditions under WAC 173-303-840(8) either:

A. a decision that corrective action is not necessary to protect human health or the environment;

B. an extension to the schedule established under Permit Condition II.l.Y.3.a.ii; or

C. a decision that corrective action in accordance with Permit Condition II.Y.1 is necessary to protect human health or the environment.

II.Y.3.a.iii If Ecology decides under Permit Condition II.Y.3.a.ii that corrective action is necessary to protect human health or the environment, the Permittee may challenge Ecology's authority to impose such corrective action requirements through a timely appeal of such permit modification, without argument from Ecology that the right to raise such challenge has been waived by a failure to fully litigate that issue through an appeal taken within thirty (30) days of the issuance of this permit, and with argument from the Permittee that such requirement fails to satisfy a cause for permit modification under WAC 173-303-830(3)(a). Within one hundred and eighty (180) days of receipt of the above Permit modification, the Permittee must submit, for Ecology review and approval, a plan to conduct corrective action in accordance with Permit Condition II.Y.1. Approved corrective action plans under this condition will be incorporated into this Permit in accordance with the Permit Modification Procedures of WAC 173-303-830.

II.Y.3.b Newly Identified Solid Waste Management Units and Newly Identified Releases of Dangerous Waste or Dangerous Constituents.

The Permittee must notify Ecology of all newly-identified solid waste management units and all newly-identified areas of concern at the Facility. For purposes of this condition, a 'newly-identified' solid waste management unit or a 'newly-identified' area of concern is a unit or area not identified in the HFFACO, as amended, on the effective date of this condition and not identified by Permit Condition II.Y.3.a. Notification to Ecology must be in writing and must include, for each newly-identified unit or area, the information required by WAC 173-303-806(4)(a)(xxiii) and WAC 173-303-806(4)(a)(xxiv). Notification to Ecology must occur at least once every calendar year, in January, and must include all units and areas newly identified since the last notification, except that if a newly identified unit or area may present an imminent and substantial endangerment to human health or the environment, notification must occur within five (5) days of identification of the unit or area. If information required by WAC 173-303-806(4)(a)(xxiii) or WAC 173-303-806(4)(a)(xxiv) is already included in the Waste Information Data System, it may be incorporated by reference into the required notification.

II.Z WASTE MINIMIZATION

In accordance with WAC 173-303-380(1)(q), and Section 3005(h) of RCRA, 42 U.S.C. 6925(h), the Permittee must place a certification in the Hanford Facility Operating Record, Unit-Specific Files on an annual basis that:

II.Z.1.a A program is in place to reduce the volume and toxicity of hazardous waste generated to the degree determined by the Permittee to be economically practicable; and,

II.Z.1.b The proposed method of treatment, storage or disposal is that practicable method currently available to the Permittee, which minimizes the present and future threat to human health and the environment.

II.Z.2 The Permittee will maintain each such certification of waste minimization in the operating record as required by Permit Condition II.I.1.

II.AA AIR EMISSION STANDARDS FOR PROCESS VENTS

The Permittees will comply with applicable requirements of WAC 173-303-690 for process vents associated with Part III units performing specific separations processes unless exempted by WAC 173-303-690(1)(d). Threshold limits applied to process vents potentially requiring emission controls subject to WAC 173-303-690 are evaluated based on the summation of applicable emission sources for the entire Hanford Facility. When the summed emissions fall below threshold limits in 40 CFR 264.1032(a)(1), no emission control devices are required. If threshold limits in 40 CFR 264.1032(a)(1) are predicted to be exceeded, the Permittees will notify Ecology to determine the appropriate course of action. Unit-specific information is contained in Part III of the Permit for applicable units.

II.BB AIR EMISSION STANDARDS FOR EQUIPMENT LEAKS

The Permittees will comply with applicable requirements of WAC 173-303-691 for certain equipment leaks associated with Part III units unless exempted by WAC 173-303-691(1)(e) or (f). Air emission standards apply to equipment that contacts or contains hazardous wastes with organic concentrations of at least 10 percent by weight. Unit-specific information is contained in Part III of the Permit for applicable units.

II.CC AIR EMISSION STANDARDS FOR TANKS, SURFACE IMPOUNDMENTS, AND CONTAINERS

The Permittees shall comply with applicable requirements of WAC 173-303-692 for containers, tanks, and surface impoundment areas associated with Part III units unless exempted by WAC 173-303-692(1)(b). Unit-specific information is contained in Part III of the Permit for applicable units.

PART III UNIT-SPECIFIC CONDITIONS FOR FINAL STATUS OPERATIONS

Operating Unit 1, 305-B Storage Facility, (Closed 7/2/07)
Operating Unit 2, PUREX Storage Tunnels
Operating Unit 3, Liquid Effluent Retention Facility and 200 Area Effluent Treatment Facility
Operating Unit 4, 242-A Evaporator
Operating Unit 5, 325 Hazardous Waste Treatment Units
Operating Unit 10, Waste Treatment and Immobilization Plant
Operating Unit 11, Integrated Disposal Facility
Operating Unit 15, 331-C Storage Unit
Operating Unit 16, 400 Area Waste Management Unit

PART IV UNIT SPECIFIC CONDITIONS FOR CORRECTIVE ACTION

Corrective Action Unit 1, 100-NR-1
Corrective Action Unit 2, 100-NR-2

PART V UNIT-SPECIFIC CONDITIONS FOR UNITS UNDERGOING CLOSURE

Closure Unit 1, 1325-N Liquid Waste Disposal Facility
Closure Unit 2, 1301-N Liquid Waste Disposal Facility
Closure Unit 3, 1324-N Surface Impoundment and 1324-NA Percolation Pond
Closure Unit 5, 300 Area Waste Acid Treatment System
Closure Unit 10, 224-T Transuranic Waste Storage and Assay Facility

PART VI UNIT-SPECIFIC CONDITIONS FOR UNITS IN POST-CLOSURE

Post-Closure Unit 1, 300 Area Process Trenches
Post-Closure Unit 2, 183-H Solar Evaporation Basins

UNITS RETIRED FROM THE PERMIT

241-Z Treatment and Storage Tanks, (Closed 2/22/07)
303-M Oxide Facility, (Closed 6/15/06)
Plutonium Finishing Plant Treatment Unit, (Closed 2/8/05)
105-DR Large Sodium Fire Facility, (Closed 7/1/04)
303-K Storage Facility (Closed, 7/22/02)
100 D Ponds, (Closed, 8/9/99)
3718-F Alkali Metal Treatment and Storage Facility Closure Plan, (Closed, 8/4/98)
4843 Alkali Metal Storage Facility Closure Plan, (Closed, 4/14/97)
304 Concretion Facility, (Closed, 1/21/96)
218-E-8 Borrow Pit Demolition Site, (Closed, 11/28/95)
200 West Area Ash Pit Demolition Site, (Closed, 11/28/95)
2101-M Pond, (Closed, 11/28/95)
Hanford Patrol Academy Demolition Site, (Closed, 11/28/95)
Simulated High Level Waste Slurry Treatment and Storage Unit, (Closed, 10/23/95)
300 Area Solvent Evaporator, (Closed, 7/31/95)
2727-S Nonradioactive Dangerous Waste Storage Facility, (Closed, 7/31/95)
216-B-3 Expansion Ponds, (Closed, 7/31/95)

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PART I									
CONDITION		CATEGORY							QUALIFIERS
PART	TITLE	A	B	C	D	E	F	G	
I.A.	EFFECT OF PERMIT								
I.A.1.		*	*	*	*	*	*	*	
I.A.2.		*	*	*	*	*	*	*	
I.A.3.		*	*		*	*	*	*	
I.A.4.	Coordination with the FFACO		*		*	*	*	*	
I.B.	PERSONAL AND PROPERTY RIGHTS		*		*	*	*	*	
I.C.	PERMIT ACTIONS								
I.C.1.	Modification, Revocation, Reissuance, or Termination		*		*	*	*	*	
I.C.2.	Filing of a Request		*		*	*	*	*	
I.C.3.	Modifications		*		*	*	*	*	
I.D.	SEVERABILITY								
I.D.1.	Effect of Invalidation		*		*	*	*	*	
I.D.2.	Final Resolution		*		*	*	*	*	
I.E.	DUTIES AND REQUIREMENTS								
I.E.1.	Duty to Comply		*		*	*	*	*	
I.E.2.	Compliance Not Constituting Defense		*		*	*	*	*	
I.E.3.	Duty to Reapply		*		*	*	*	*	
I.E.4.	Permit Expiration & Continuation		*		*	*	*	*	
I.E.5.	Need to Halt or Reduce Activity Not a Defense		*		*	*	*	*	
I.E.6.	Duty to Mitigate		*		*	*	*	*	
I.E.7.	Proper Operation & Maintenance		*			*	*	*	
I.E.8.	Duty to Provide Information		*		*	*	*	*	
I.E.9.	Inspection & Entry		*		*	*	*	*	
I.E.10.	Monitoring & Records								
I.E.11.	Reporting Planned Changes		*			*	*	*	
I.E.12.	Certification of Construction or Modification		*				*		
I.E.13.	Anticipated Noncompliance		*		*	*	*	*	
I.E.14.	Transfer of Permits		*			*	*	*	
I.E.15.	Immediate Reporting		*		*	*	*	*	
I.E.16.	Written Reporting		*		*	*	*	*	

CATEGORIES ARE DEFINED AS FOLLOWS:

A. Leased Land
B. North Slope and ALE
C. Interim Status TSD Units
D. Areas Between TSDs (excluding A and B)
E. TSD Unit Closures (in Part V)
F. TSD Operating Units (in Part III)
G. TSD Units in Post-Closure/Modified Closure (in Part VI)

* Condition applies to this category, as modified by applicable footnotes and qualifiers.

1 – For Category B, Part I Conditions only apply if future TSD activities are begun on the North Slope or ALE.
2 – For Category C, all Part I Conditions apply to activities subject to Conditions II.U. and II.V.
3 – For Category D, Part I Conditions only apply to activities subject to Conditions II.A., II.C., II.D.4., II.G., II.I., II.L.3., II.O., II.Q., II.S., II.T., II.X., and II.Y.

PART I									
CONDITION		CATEGORY							QUALIFIERS
PART	TITLE	A	B	C	D	E	F	G	
I.E.17.	Manifest Discrepancy Report								
I.E.17.a			*			*	*	*	
I.E.17.b			*		*	*	*	*	
I.E.18.	Unmanifested Waste Report		*			*	*	*	
I.E.19.	Other Noncompliance		*		*	*	*	*	
I.E.20.	Other Information		*		*	*	*	*	
I.E.21.	Reports, Notifications, & Submissions		*		*	*	*	*	
I.E.22.	Annual Report		*		*	*	*	*	
I.F.	SIGNATORY REQUIREMENT		*		*	*	*	*	
I.G.	CONFIDENTIAL INFORMATION		*		*	*	*	*	
I.H.	DOCUMENTS TO BE MAINTAINED AT FACILITY SITE		*		*	*	*	*	

CATEGORIES ARE DEFINED AS FOLLOWS:

A. Leased Land
B. North Slope and ALE
C. Interim Status TSD Units
D. Areas Between TSDs (excluding A and B)
E. TSD Unit Closures (in Part V)
F. TSD Operating Units (in Part III)
G. TSD Units in Post-Closure/Modified Closure (in Part VI)

* Condition applies to this category, as modified by applicable footnotes and qualifiers.

1 – For Category B, Part I Conditions only apply if future TSD activities are begun on the North Slope or ALE.
2 – For Category C, all Part I Conditions apply to activities subject to Conditions II.U. and II.V.
3 – For Category D, Part I Conditions only apply to activities subject to Conditions II.A., II.C., II.D.4., II.G., II.I., II.L.3., II.O., II.Q., II.S., II.T., II.X., and II.Y.

PART II									
CONDITION		CATEGORY							QUALIFIERS
PART	TITLE	A	B	C	D	E	F	G	
II.A.	FACILITY CONTINGENCY PLAN								
II.A.1.					*	*	*	*	For Category D, II.A Conditions only apply to releases of hazardous substances that threaten human health or the environment.
II.A.2.					*	*	*	*	
II.A.3.					*	*	*	*	
II.A.4.					*	*	*	*	
II.B.	PREPAREDNESS AND PREVENTION								
II.B.1.						*	*		
II.B.2.						*	*		
II.B.3.						*	*		
II.B.4.						*	*		
II.B.5						*	*		
II.C.	PERSONNEL TRAINING								
II.C.1.						*	*	*	
II.C.2.					*	*	*	*	
II.C.3.						*	*	*	
II.C.4.					*	*	*	*	For Category D, Condition II.C.4 will not apply to unrestricted (publicly accessible) areas.
II.D.	WASTE ANALYSIS								
II.D.1.						*	*	*	
II.D.2.						*	*	*	
II.D.3						*	*	*	
II.E.	QUALITY ASSURANCE/ QUALITY CONTROL								
II.E.1.						*	*	*	
II.E.2.						*	*	*	
II.F.	GROUND WATER AND VADOSE ZONE MONITORING					*	*	*	
II.F.1.	Purgewater Management					*	*	*	
II.F.2.	Well Remediation and Abandonment					*	*	*	

CATEGORIES ARE DEFINED AS FOLLOWS:

A. Leased Land
B. North Slope and ALE
C. Interim Status TSD Units
D. Areas Between TSDs (excluding A and B)
E. TSD Unit Closures (in Part V)
F. TSD Operating Units (in Part III)
G. TSD Units in Post-Closure/Modified Closure (in Part VI)

*Condition applies to this category, as modified by applicable footnotes and qualifiers.

PART II									
CONDITION		CATEGORY							QUALIFIERS
PART	TITLE	A	B	C	D	E	F	G	
II.F.3.	Well Construction					*	*	*	
II.G.	SITING CRITERIA				*		*		For Category D, Condition II.G only applies if a new TSD unit is to be sited.
II.H.	RECORDKEEPING AND REPORTING					*	*	*	
II.I.	FACILITY OPERATING RECORD								For Category D, II.I Conditions only apply to activities subject to this Permit as defined by this matrix. For Category E, Condition applicability to be specified in Part V. Condition II.I only applies to existing records and records prepared after the date of Permit issuance.
II.I.1.		*	*		*	*	*	*	
II.I.1.a.		*	*		*	*	*	*	
II.I.1.b.							*	*	
II.I.1.c.					*	*	*	*	
II.I.1.d.						*.	*	*	
II.I.1.e.			*		*				
II.I.1.f.					*	*	*	*	
II.I.1.g.						*	*	*	
II.I.1.h.	Reserved Condition								
II.I.1.i.	Reserved Condition								
II.I.1.j.						*	*	*	
II.I.1.k.					*	*	*	*	
II.I.1.l.	Reserved Condition								
II.I.1.m.						*	*	*	
II.I.1.n.					*	*	*	*	
II.I.1.o.	Reserved Condition								
II.I.1.p.			*		*	*	*	*	

CATEGORIES ARE DEFINED AS FOLLOWS:

A. Leased Land
B. North Slope and ALE
C. Interim Status TSD Units
D. Areas Between TSDs (excluding A and B)
E. TSD Unit Closures (in Part V)
F. TSD Operating Units (in Part III)
G. TSD Units in Post-Closure/Modified Closure (in Part VI)

*Condition applies to this category, as modified by applicable footnotes and qualifiers.

PART II									
CONDITION		CATEGORY							QUALIFIERS
PART	TITLE	A	B	C	D	E	F	G	
II.I.1.q.			*		*	*	*	*	
II.I.1.r.					*	*	*	*	
II.I.1.s.					*	*	*	*	
II.I.1.t.					*	*	*	*	
II.J.	FACILITY CLOSURE								
II.J.1.						*	*	*	
II.J.2.						*	*	*	
II.J.3.						*	*	*	
II.J.4.						*	*	*	
II.K.	SOIL/GROUND WATER CLOSURE PERFORMANCE STANDARDS								
II.K.1.						*	*	*	
II.K.2.						*	*	*	
II.K.3.						*	*	*	
II.K.4.						*	*	*	
II.K.5.						*	*	*	
II.K.6.						*	*	*	
II.K.7.						*	*	*	
II.L.	DESIGN AND OPERATION OF FACILITY								
II.L.1.	Proper Design and Construction					*	*	*	
II.L.2.	Design Changes, Nonconformance and as-built Drawings					*	*	*	Condition II.L.2, applies to Categories E & G only if it is a landfill closure.
II.L.2.a.						*	*	*	
II.L.2.b.						*	*	*	
II.L.2.c.						*	*	*	
II.L.2.d.						*	*	*	
II.L.2.e	Facility Compliance				*	*	*	*	
II.M.	SECURITY					*	*	*	
II.N.	RECEIPT OF DANGEROUS WASTES GENERATED OFF-SITE								
II.N.1.	Receipt of Off-Site Waste						*		
II.N.2.	Waste From Sources Outside the U.S.						*		
II.N.3.	Notice to Generator						*		

CATEGORIES ARE DEFINED AS FOLLOWS:

A. Leased Land
B. North Slope and ALE
C. Interim Status TSD Units
D. Areas Between TSDs (excluding A and B)
E. TSD Unit Closures (in Part V)
F. TSD Operating Units (in Part III)
G. TSD Units in Post-Closure/Modified Closure (in Part VI)

*Condition applies to this category, as modified by applicable footnotes and qualifiers.

PART II									
CONDITION		CATEGORY							QUALIFIERS
PART	TITLE	A	B	C	D	E	F	G	
II.O.	GENERAL INSPECTION REQUIREMENTS								
II.O.1.					*	*	*	*	
II.O.1.a.					*				
II.O.1.b.					*				
II.O.1.c.					*				
II.O.1.d.					*				
II.O.2.					*	*	*	*	
II.O.3.					*	*	*	*	
II.P.	MANIFEST SYSTEM								
II.P.1.						*	*	*	
II.P.2.						*	*	*	
II.Q.	ON-SITE TRANSPORTATION								
II.Q.1.					*	*	*	*	
II.Q.2.					*	*	*	*	
II.R.	EQUIVALENT MATERIALS								
II.R.1.						*	*	*	
II.R.2.						*	*	*	
II.R.3.						*	*	*	
II.S.	LAND DISPOSAL RESTRICTIONS				*	*	*	*	
II.T.	ACCESS AND INFORMATION				*	*	*	*	
II.U.	MAPPING OF UNDERGROUND PIPING								
II.U.1.	Reserved Condition								
II.U.2.	Reserved Condition								
II.U.3.				*		*	*	*	
II.U.4.				*		*	*	*	
II.V.	MARKING OF UNDERGROUND PIPING			*		*	*	*	
II.W.	OTHER PERMITS AND/OR APPROVALS								
II.W.1.						*	*	*	
II.W.2.						*	*	*	
II.W.3.						*	*	*	

CATEGORIES ARE DEFINED AS FOLLOWS:

A. Leased Land
B. North Slope and ALE
C. Interim Status TSD Units
D. Areas Between TSDs (excluding A and B)
E. TSD Unit Closures (in Part V)
F. TSD Operating Units (in Part III)
G. TSD Units in Post-Closure/Modified Closure (in Part VI)

*Condition applies to this category, as modified by applicable footnotes and qualifiers.

PART II									
CONDITION		CATEGORY							QUALIFIERS
PART	TITLE	A	B	C	D	E	F	G	
II.X.	SCHEDULE EXTENSIONS								
II.X.1.				*	*	*	*	*	Condition II.X, only applies to Category C if activities are subject to Conditions II.U, and II.V.
II.X.2.				*	*	*	*	*	Condition II.X, only applies to Category D if activities are subject to this Permit as defined by this matrix.
II.Y.	CORRECTIVE ACTION	*	*	*	*	*	*	*	
II.Y.1.	Compliance with Chapter 173-340 WAC	*	*	*	*	*	*	*	
II.Y.1.a.		*	*	*	*	*	*	*	
II.Y.1.b.		*	*	*	*	*	*	*	
II.Y.1.c.		*	*	*	*	*	*	*	
II.Y.1.d.		*	*	*	*	*	*	*	
II.Y.1.e.		*	*	*	*	*	*	*	
II.Y.1.f.		*	*	*	*	*	*	*	
II.Y.1.g.		*	*	*	*	*	*	*	
II.Y.2.	Acceptance of Work Under Other Authorities or Programs and Integration with the FFACO	*	*	*	*	*	*	*	
II.Y.2.a.		*	*	*	*	*	*	*	
II.Y.2.b.		*	*	*	*	*	*	*	
II.Y.2.c.		*	*	*	*	*	*	*	
II.Y.2.d.		*	*	*	*	*	*	*	
II.Y.3.	Releases of Dangerous Waste or Dangerous Constituents Not Covered by the FFACO	*	*	*	*	*	*	*	
II.Y.3.a.	U.S. Ecology	*	*	*	*	*	*	*	
II.Y.3.b.	Newly Identified Solid Waste Management Units and Newly Identified Releases of Dangerous Waste or Dangerous Waste Constituents	*	*	*	*	*	*	*	
II.Z	WASTE MINIMIZATION								
II.Z.1							*		
II.Z.1.a							*		
II.Z.1.b							*		

CATEGORIES ARE DEFINED AS FOLLOWS:

A. Leased Land
B. North Slope and ALE
C. Interim Status TSD Units
D. Areas Between TSDs (excluding A and B)
E. TSD Unit Closures (in Part V)
F. TSD Operating Units (in Part III)
G. TSD Units in Post-Closure/Modified Closure (in Part VI)

*Condition applies to this category, as modified by applicable footnotes and qualifiers.

PART II									
CONDITION		CATEGORY							QUALIFIERS
PART	TITLE	A	B	C	D	E	F	G	
II.Z.2							*		
II.AA	AIR EMISSION STANDARDS FOR PROCESS VENTS						*		
II.BB	AIR EMISSION STANDARDS FOR EQUIPMENT LEAKS						*		
II.CC	AIR EMISSION STANDARDS FOR TANKS, SURFACE IMPOUNDMENTS, AND CONTAINERS						*		

CATEGORIES ARE DEFINED AS FOLLOWS:

A. Leased Land
B. North Slope and ALE
C. Interim Status TSD Units
D. Areas Between TSDs (excluding A and B)
E. TSD Unit Closures (in Part V)
F. TSD Operating Units (in Part III)
G. TSD Units in Post-Closure/Modified Closure (in Part VI)

*Condition applies to this category, as modified by applicable footnotes and qualifiers.

PART III									
CONDITION		CATEGORY							QUALIFIERS
PART	TITLE	A	B	C	D	E	F	G	
III.	UNIT SPECIFIC CONDITIONS FOR FINAL STATUS OPERATIONS								
III.2	PUREX Storage Tunnels						*		
III.3	Liquid Effluent Retention Facility & 200 Area Effluent Treatment Facility						*		
III.4	242-A Evaporator						*		
III.5	325 Hazardous Waste Treatment Units						*		
III.10	Waste Treatment and Immobilization Plant						*		
III.11	Integrated Disposal Facility						*		
III.15	331-C Storage Unit						*		
III.16	400 Area Waste Management Unit						*		

PART IV									
CONDITION		CATEGORY							QUALIFIERS
PART	TITLE	A	B	C	D	E	F	G	
IV.	UNIT SPECIFIC CONDITIONS FOR CORRECTIVE ACTION								
IV.1	100-NR-1				*	*			
IV.2	100-NR-2				*	*			

PART V									
CONDITION		CATEGORY							QUALIFIERS
PART	TITLE	A	B	C	D	E	F	G	
V.	UNIT SPECIFIC CONDITIONS FOR UNITS UNDERGOING CLOSURE								
V.1	1325-N Liquid Waste Disposal Facility					*			
V.2	1301-N Liquid Waste Disposal Facility					*			
V.3	1324-N Surface Impoundment &1324-NA Surface Impoundment					*			
V.10	224-T Transuranic Waste Storage and Assay Facility					*			

PART VI									
CONDITION		CATEGORY							QUALIFIERS
PART	TITLE	A	B	C	D	E	F	G	
VI.	UNIT SPECIFIC CONDITIONS FOR UNITS IN POST-CLOSURE								
VI.1	300 Area Process Trenches							*	
VI.2	183-H Solar Evaporation Basins							*	

CATEGORIES ARE DEFINED AS FOLLOWS:

A. Leased Land
B. North Slope and ALE
C. Interim Status TSD Units
D. Areas Between TSDs (excluding A and B)
E. TSD Unit Closures (in Part V)
F. TSD Operating Units (in Part III)
G. TSD Units in Post-Closure/Modified Closure (in Part VI)

*Condition applies to this category, as modified by applicable footnotes and qualifiers.

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PART III OPERATING UNIT GROUP 16 CONDITIONS

400 Area Waste Management Unit

UNIT DESCRIPTION

The 400 Area Waste Management Unit (WMU) is located within the Fast Flux Test Facility (FFTF) Property Protected Area (PPA) in the 400 Area of the Hanford Facility. The 400 Area WMU consists of two container storage units as follows:

- Fuel Storage Facility (FSF, Building 403). The FSF is a reinforced concrete substructure covered by a steel frame metal-sided high bay building. Building dimensions are 34 x 27 x 12 meters (112 x 90 x 40 feet). The container storage unit is the ground-level floor of the building. Two large steel boxes containing sodium-contaminated Core Component Pots (CCPs) are in storage in the FSF as of the effective date of this permit. While the FSF is physically capable of accommodating additional containers of mixed waste, any additional wastes that may be accepted for storage within the 400 Area WMU are anticipated to be placed in the Interim Storage Area.
- Interim Storage Area, 4718 (ISA) (including Building 432A). The ISA consists of 156 x 247 meters (513 x 247 feet) totally fenced area with perimeter lighting that has been designated for above ground dry cask storage of spent fuel. A concrete pad located within the ISA, which measures 27 x 37 meters (90 x 120 feet), was used for dry cask storage, but will not necessarily be used for mixed waste management. The remainder of the ISA surface is gravel. The ISA is generally flat, but graded to drain in accordance with the general drainage plan for the FFTF PPA. One structure, is open on the east side, and is located on the west fence line of the ISA, but will not be used for mixed waste management.

The location of each storage unit is shown on the scale map contained in Addendum A. The mixed waste stored in these two container storage units is limited exclusively to debris (e.g., piping, equipment, and components) contaminated with elemental sodium and sodium hydroxide (D002). This waste stream is designated as (D001, D003, and WSC2). Neither bulk metallic sodium nor bulk sodium hydroxide will be stored or otherwise managed in the FSF or the ISA.

LIST OF ADDENDUMS

Addendum A	400 Area WMU Part A Permit Application
Addendum B	400 Area WMU Waste Analysis Plan
Addendum C	Reserved
Addendum D	Reserved
Addendum E	400 Area WMU Contingency Plan
Addendum F	400 Area WMU Training Plan
Addendum G	400 Area WMU Closure Plan
Addendum H	400 Area Container Storage Units Inspection Plan

DEFINITIONS

Reserved

ACRONYMS

The following acronyms are specific to Part III Chapter 16 of this permit:

CCPs	Core Component Pots
FFTF	Fast Flux Test Facility
ISA	Interim Storage Area
FSF	Fuel Storage Facility
PPA	Property Protected Area
WMU	Waste Management Unit

III.16.A COMPLIANCE WITH PERMIT CONDITIONS

The Permittees are authorized to accept and store mixed waste in the 400 Area WMU container storage units, the FSF and the ISA. These dangerous waste management units and corresponding waste management activities will be subject to conditions in this Chapter, its addendums, and the applicable requirements in Parts I and II.

III.16.B GENERAL WASTE MANAGEMENT STANDARDS

III.16.B.1 General Waste Management

The Permittees may accept for storage in the 400 Area WMU ISA only those mixed wastes that are identified in Addendum A.

III.16.B.2 Waste Analysis Plan

III.16.B.2.a The Permittees will maintain an accurate and complete knowledge for the waste stream identified in permit condition III.16.B.1. An electronic or hard copy of this information must be available to personnel at the 400 Area Waste Management Unit at all times wastes are being received or managed.

III.16.B.2.b The Permittees will maintain appropriate administrative controls and work practices to ensure that only wastes specified in Permit Condition III.16.B.1 are received by the ISA for storage, and that no commingling or cross-contamination of the waste stream specified in Permit Condition III.16.B.1 with any other waste stream may occur.

III.16.B.2.c Upon receipt of a waste shipment at the ISA in accordance with Addendum B, the Permittees will verify that the corresponding wastes match the specification of wastes acceptable for storage at the ISA in Permit Condition III.16.B.1 through process knowledge and records review. The Permittee will place documentation of the results of this verification and the identity of all wastes accepted for management in the 400 Area WMU portion of the Hanford Facility operating record required by Permit Condition II.I.

III.16.B.3 Recordkeeping and Reporting

III.16.B.3.a The Permittees will comply with the recordkeeping requirements in WAC 173-303-380(1)(o), incorporated by reference.

III.16.B.4 Preparedness and Prevention

III.16.B.4.a The Permittees will post warning signs stating "DANGER—UNAUTHORIZED PERSONNEL KEEP OUT" or an equivalent legend will be posted at entrances to the FSF and the ISA. These signs are, or will be, written in English, legible from a distance of 7.6 meters, and visible from any approach.

III.16.B.4.b The Permittees will comply with the requirements of WAC 173-303-395(1), (2), and (6), incorporated by reference.

III.16.B.5 Inspections

III.16.B.5.a The Permittees will perform inspections of the 400 Area WMU, FSF and the ISA according to the inspection plan in Addendum H. The Permittee will remedy any deterioration or malfunction discovered by an inspection as required by WAC 173-202-320(3), incorporated by reference.

III.16.B.5.b The Permittees will place inspection records in the 400 Area WMU portion of the Hanford Facility operating record required by Permit Condition II.I. These records will contain the following information:

1. Date and time of inspection
2. Printed name and the handwritten signature of the inspector
3. Notation of the observations made
4. Date and nature of any repairs or remedial actions taken, or the scheduled date for such repairs or remedial actions

III.16.B.6 Reserved

III.16.B.7 Contingency Plan

The Permittees will comply with the 400 Area WMU Contingency Plan in Addendum E to this Chapter in addition to the requirements of Permit Condition II.A.

III.16.B.8 Training Plan

III.16.B.8.a The Permittees will comply with the training requirements in Addendum F to this Chapter in addition to the requirements of Permit Condition II.C.

III.16.B.9 Closure

III.16.B.9.a The Permittees will close the 400 Area WMU Container Storage Units in accordance with the Closure Plan in Addendum G.

III.16.B.9.b The Permittees will amend the Closure Plan in accordance with Permit Condition II.J.3 and the Closure Plan in Addendum G.

III.16.B.9.c The Permittees will provide Ecology with a Notice of Closure according to WAC 173-303-610(3)(c).

III.16.B.10 Reserved

III.16.B.11 Land Disposal Restriction Requirements

The Permittees will ensure a schedule of compliance and any applicable associated work requirements are included in the land disposal restrictions report required by the HFFACO Milestone M-26, incorporated by reference by permit condition II.S for treatment and/or acquisition of treatment capacity for wastes which are or are expected to be stored in the 400 Area WMU container storage units.

III.16.C CONTAINERS

III.16.C.1 Container Dangerous Waste Management Unit Configuration and Waste Management Capacity

III.16.C.1.a The Permittees will maintain the physical configuration of the FSF and the ISA according to the Unit Description above.

III.16.C.1.b The Permittees are authorized to store CCPs generated prior to the effective date of this permit in two large metal boxes in the 400 Area WMU FSF.

III.16.C.1.c The Permittees are authorized store mixed waste in the ISA up to a maximum capacity of 19,000 gallons.

III.16.C.2 Identification of Containers and Container Management Practice

III.16.C.2.a The Permittees will ensure that all containers remain in good condition. If a container holding mixed waste is not in good condition (e.g., severe rusting or corrosion, or apparent structural defects), or if it begins to leak, the Permittee must transfer the waste from the container to a container that is in good condition or place the leaking container in an appropriate over-pack container. [WAC 173-303-630(2)]

III.16.C.2.b The Permittees will label containers in accordance with the requirements of WAC 173-303-630(3), incorporated by reference.

III.16.C.2.c The Permittees shall ensure that all containers are constructed of carbon steel or stainless steel, or other materials compatible with metallic sodium and sodium hydroxide. [WAC 173-303-630(4)]

III.16.C.2.d The Permittees will manage waste in containers according to the requirements of WAC 173-303-630(5), incorporated by reference.

III.16.C.2.e All containers must be stored in accordance with WAC 173-303-630(8)(b), incorporated by reference.

III.16.C.2.f The Permittees must remove spilled or leaked waste within secondary containment pursuant to WAC 173-303-630(7)(a)(ii), incorporated by reference.

III.16.C.2.g The Permittees will store waste in the 400 Area WMU container storage units according to the requirements of WAC 173-303-640(8)(b), incorporated by reference. [WAC 173-303-640(8)]

III.16.C.3 Requirements for the Fuel Storage Facility

III.16.C.3.a The Permittee will maintain an inert gas (argon or nitrogen) cover within each large metal box to prevent contact of the metallic sodium with the water vapor in the air and the formation of free liquids.

III.16.C.3.b The Permittees will place large boxes stored in the FSF in drip pans to ensure a base free of cracks or gaps, and ensure that the large boxes are elevated or otherwise protected from contact with accumulated liquids.

III.16.C.4 Requirements for the Interim Storage Area

III.16.C.4.a The Permittee may store wastes in the ISA in standard metal containers (e.g., 208-liter drums), large metal boxes fabricated to accommodate the size and shape of a particular component or debris, or unique components removed from FFTF that when closed in accordance with WAC 173-303-630(5)(a) serve as a primary container.

III.16.C.4.b Unique containers stored in the ISA must be placed on drip pans; or if containing free liquids, within secondary containment having sufficient capacity to contain ten percent of the volume of all containers within the same secondary containment area or the largest container, whichever is greater. [WAC 173-303-630(7)]

III.16.C.4.c The Permittees will store standard metal containers in the ISA within container storage modules specifically configured for storage of reactive, ignitable, and corrosive waste, and that protect containers from precipitation and run-on. Container storage modules may be placed on gravel within the ISA, and must be properly anchored to prevent displacement or overturning.

III.16.C.4.d The Permittees will manage unique components stored in the ISA on the gravel surface with sufficient open space between components and between components and the fence line to accommodate inspections and movement of equipment.

III.16.C.4.e The Permittees will not place wastes in the open-sided structure within the ISA identified in the Unit Description.

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WASHINGTON STATE DEPARTMENT OF ECOLOGY

Dangerous Waste Permit Application Part A Form

Date Received	Reviewed by: J.F.	Date: 05/16/2007
Month Day Year	Approved by: G.P. Davis	Date: 05/16/2007

I. This form is submitted to: (place an "X" in the appropriate box)

☒	Request modification to a final status permit (commonly called a "Part B" permit)
☐	Request a change under interim status
☐	Apply for a final status permit. This includes the application for the initial final status permit for a site or for a permit renewal (i.e., a new permit to replace an expiring permit).
☐	Establish interim status because of the wastes newly regulated on: (Date)
	List waste codes:

II. EPA/State ID Number

W A 7 8 9 0 0 0 8 9 6 7

III. Name of Facility

US Department of Energy - Hanford Facility

IV. Facility Location (Physical address not P.O. Box or Route Number)

A. Street

825 Jadwin

City or Town	State	ZIP Code
Richland	WA	99352

County Code (if known)	County Name
0 0 5	Benton

B. Land Type	C. Geographic Location Latitude (degrees, mins, secs)	Longitude (degrees, mins, secs)	D. Facility Existence Date Month Day Year
F	SEE TOPO	MAP	03 22 1943

V. Facility Mailing Address

Street or P.O. Box

P.O. Box 550

City or Town	State	ZIP Code
Richland	WA	99352

VI. Facility contact (Person to be contacted regarding waste activities at facility)		
Name (last)	**(first)**	
Klein	Keith	
Job Title	**Phone Number (area code and number)**	
Manager	(509) 376-7395	
Contact Address		
Street or P.O. Box		
P.O. Box 550		
City or Town	**State**	**ZIP Code**
Richland	WA	99352

VII. Facility Operator Information		
A. Name	**Phone Number (area code and number)**	
Department of Energy Owner/Operator Fluor Hanford** Co-Operator for 400 Area Waste Management Unit	(509) 376-7395 (509) 375-3576**	
Street or P.O. Box		
P.O. Box 550 P.O. Box 1000 **		
City or Town	**State**	**ZIP Code**
Richland	WA	99352
B. Operator Type F		
C. Does the name in VII.A reflect a proposed change in operator?	☐ Yes ☒ No	
If yes, provide the scheduled date for the change:	**Month**	**Day** / **Year**
D. Is the name listed in VII.A. also the owner? If yes, skip to Section VIII.C.	☐ Yes ☒ No	

VIII. Facility Owner Information		
A. Name	**Phone Number (area code and number)**	
Keith A. Klein, Operator/Facility-Property Owner	(509) 376-7395	
Street or P.O. Box		
P.O. Box 550		
City or Town	**State**	**ZIP Code**
Richland	WA	99352
B. Operator Type F		
C. Does the name in VII.A reflect a proposed change in operator?	☐ Yes ☒ No	
If yes, provide the scheduled date for the change:	**Month**	**Day** / **Year**

IX. NAICS Codes (5/6 digit codes)													
A. First							**B. Second**						
5	6	2	2	1		Waste Treatment & Disposal	9	2	4	1	1	0	Administration of Air & Water Resource & Solid Waste Management Programs
C. Third							**D. Fourth**						
5	4	1	7	1	0	Research & Development in the Physical, Engineering, & Life Sciences	9	9	9	9	9	9	Unclassified Establishments

X. Other Environmental Permits (see instructions)

A. Permit Type	B. Permit Number	C. Description
E	AIR 06-1007	WAC 246-247, Radiation Protection – Air Emissions
E	AIR 06-1011	WAC 246-247, Radiation Protection – Air Emissions
E	UST 4501	WAC 173-216, State Waste Dischare Permit Program 400 Area/FFTF

XI. Nature of Business (provide a brief description that includes both dangerous waste and non-dangerous waste areas and activities)

The Fast Flux Test Facility (FFTF) was a 400-megawatt (thermal) liquid-metal cooled (sodium) research and test reactor located in the 400 Area of the Hanford Facility. The FFTF developed and tested advanced fuels and material for the Liquid Metal Fast Breeder Reactor program. The FFTF was constructed in the late 1970's and first went critical on February 9, 1980. FFTF operated successfully from 1982 to 1992. The Department of Energy (DOE) issued a shutdown order in December 1993, and since that time, the DOE has been de-fueling the reactor and deactivating systems, as they were no longer needed. Mixed waste stored in the 400 Area Waste Management unit can include elemental sodium (D001, D003, WSC2) and sodium hydroxide (D002); as well as debris (for example piping, equipment, and components) contaminated with elemental sodium and sodium hydoxide. The mixed waste stored in the 400 Area Waste Management unit is limited to wastes generated from the 400 Area. Mixed waste will be stored in containers (for example drums and boxes) until treatment capabilities are available.

Greater-than 90-day Storage Areas:

Fuel Storage Facility (Building 403)

The Fuel Storage Facility (FSF) is a one-level reinforced concrete substructure covered by a steel frame metal-sided high bay building. Building dimensions are 34 x 27 x 12 meters (112 x 90 x 40) high. The principal equipment in the FSF is a belowground cell containing a carbon steel storage vessel approximately 6.4 meters (21 feet) in diameter and 7.3 meters (24 feet) deep for storing up to 466 FFTF spent fuel assemblies in liquid sodium. Adjacent buildings and below-grade cells contain the natural draft heat exchanger used to cool the FSF pool. With the exception of two areas, which are radiation areas (cells 907 and 906); all accessible areas are Radioactive Material Areas. The process design capacity for the FSF is 1,000 gallons.

Interim Storage Area

The 400 Area Interim Storage Area (ISA) consists of 156 x 75 meters (513 x 247 feet) totally fenced area with perimeter lighting that has been designated for above ground dry cask storage of spent fuel. A concrete pad, which measures 27 x 37 meters (90 x 120 Feet), was used for cask storage. The process design capacity for the ISA is 19,000 gallons.

EXAMPLE FOR COMPLETING ITEMS XII and XIII (shown in lines numbered X-1, X-2, and X-3 below): A facility has two storage tanks that hold 1200 gallons and 400 gallons respectively. There is also treatment in tanks at 20 gallons/hr. Finally, a one-quarter acre area that is two meters deep will undergo *in situ vitrification.*

Section XII. Process Codes and Design Capacities								Section XIII. Other Process Codes								
Line Number		A. Process Codes (enter code)			B. Process Design Capacity		C. Process Total Number of Units	Line Number		A. Process Codes (enter code)			B Process Design Capacity		C. Process Total Number of Units	D. Process Description
					1. Amount	2. Unit of Measure (enter code)							1. Amount	2. Unit of Measure (enter code)		
X	1	S	0	2	1,600	G	002	X	1	T	0	4	700	C	001	In situ vitrification
X	2	T	0	3	20	E	001									
X	3	T	0	4	700	C	001									
	1	S	0	1	20,000	G	003		1							
	2								2							
	3								3							
	4								4							
	5								5							
	6								6							
	7								7							
	8								8							
	9								9							
1	0							1	0							
1	1							1	1							
1	2							1	2							
1	3							1	3							
1	4							1	4							
1	5							1	5							
1	6							1	6							
1	7							1	7							
1	8							1	8							
1	9							1	9							
2	0							2	0							
2	1							2	1							
2	2							2	2							
2	3							2	3							
2	4							2	4							
2	5							2	5							

XIV. Description of Dangerous Wastes

Example for completing this section: A facility will receive three non-listed wastes, then store and treat them on-site. Two wastes are corrosive only, with the facility receiving and storing the wastes in containers. There will be about 200 pounds per year of each of these two wastes, which will be neutralized in a tank. The other waste is corrosive and ignitable and will be neutralized then blended into hazardous waste fuel. There will be about 100 pounds per year of that waste, which will be received in bulk and put into tanks.

Line Number			A. Dangerous Waste No. (enter code)				B. Estimated Annual Quantity of Waste	C. Unit of Measure (enter code)	D. Processes									
									(1) Process Codes (enter)									(2) Process Description [If a code is not entered in D (1)]
X	1		D	0	0	2	400	P	S	0	1	T	0	1				
X	2		D	0	0	1	100	P	S	0	2	T	0	1				
X	3		D	0	0	2												Included with above
		1	D	0	0	1	30	T	S	0	1							Includes debris
		2	D	0	0	2		T	S	0	1							Includes debris
		3	D	0	0	3		T	S	0	1							Includes debris
		4	W	S	C	2		T	S	0	1							Includes debris
		5																
		6																
		7																
		8																
		9																
	1	0																
	1	1																
	1	2																
	1	3																
	1	4																
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	1	7																
	1	8																
	1	9																
	2	0																
	2	1																
	2	2																
	2	3																
	2	4																
	2	5																

XV. Map

Attach to this application a topographic map of the area extending to at least one (1) mile beyond property boundaries. The map must show the outline of the facility; the location of each of its existing and proposed intake and discharge structures; each of its dangerous waste treatment, storage, recycling, or disposal units; and each well where fluids are injected underground. Include all springs, rivers, and other surface water bodies in this map area, plus drinking water wells listed in public records or otherwise known to the applicant within ¼ mile of the facility property boundary. The instructions provide additional information on meeting these requirements.

XVI. Facility Drawing

All existing facilities must include a scale drawing of the facility (refer to instructions for more detail).

XVII. Photographs

All existing facilities must include photographs (aerial or ground-level) that clearly delineate all existing structures; existing storage, treatment, recycling, and disposal areas; and sites of future storage, treatment, recycling, or disposal areas (refer to instructions for more detail).

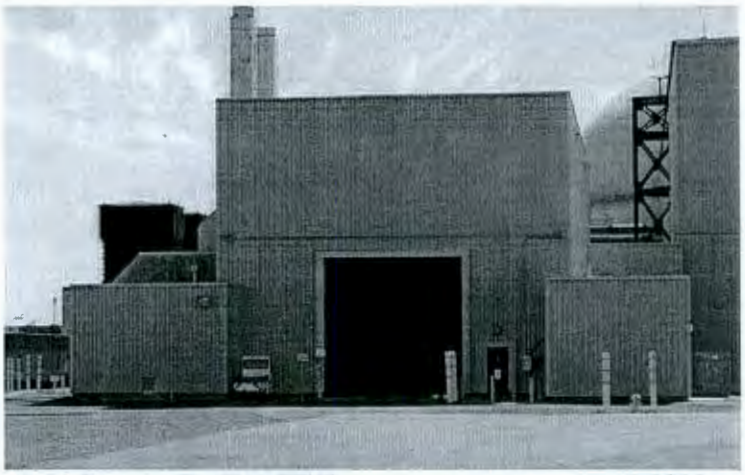
XVIII. Certifications

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

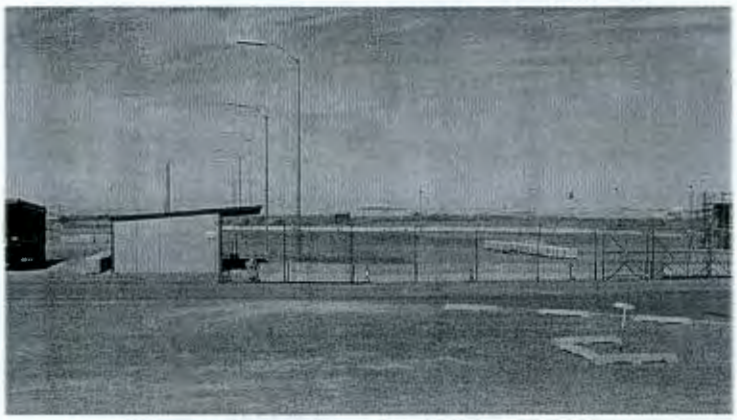
Operator Name and Official Title (type or print) Keith A. Klein, Manager U.S. Department of Energy Richland Operations Office	**Signature**	**Date Signed** 5/5/07
Co-Operator** Name and Official Title (type or print) George W. Jackson Executive Vice-President and Chief Operating Officer Fluor Hanford	**Signature**	**Date Signed** 4/27/07
Co-Operator** – Address and Telephone Number 2420 Stevens Center P.O. Box 1000 Richland, WA 99352-1000 (509) 376-3576		
Facility-Property Owner Name and Official Title (type or print) Keith A. Klein, Manager U.S. Department of Energy Richland Operations Office	**Signature**	**Date Signed** 5/5/07

Comments

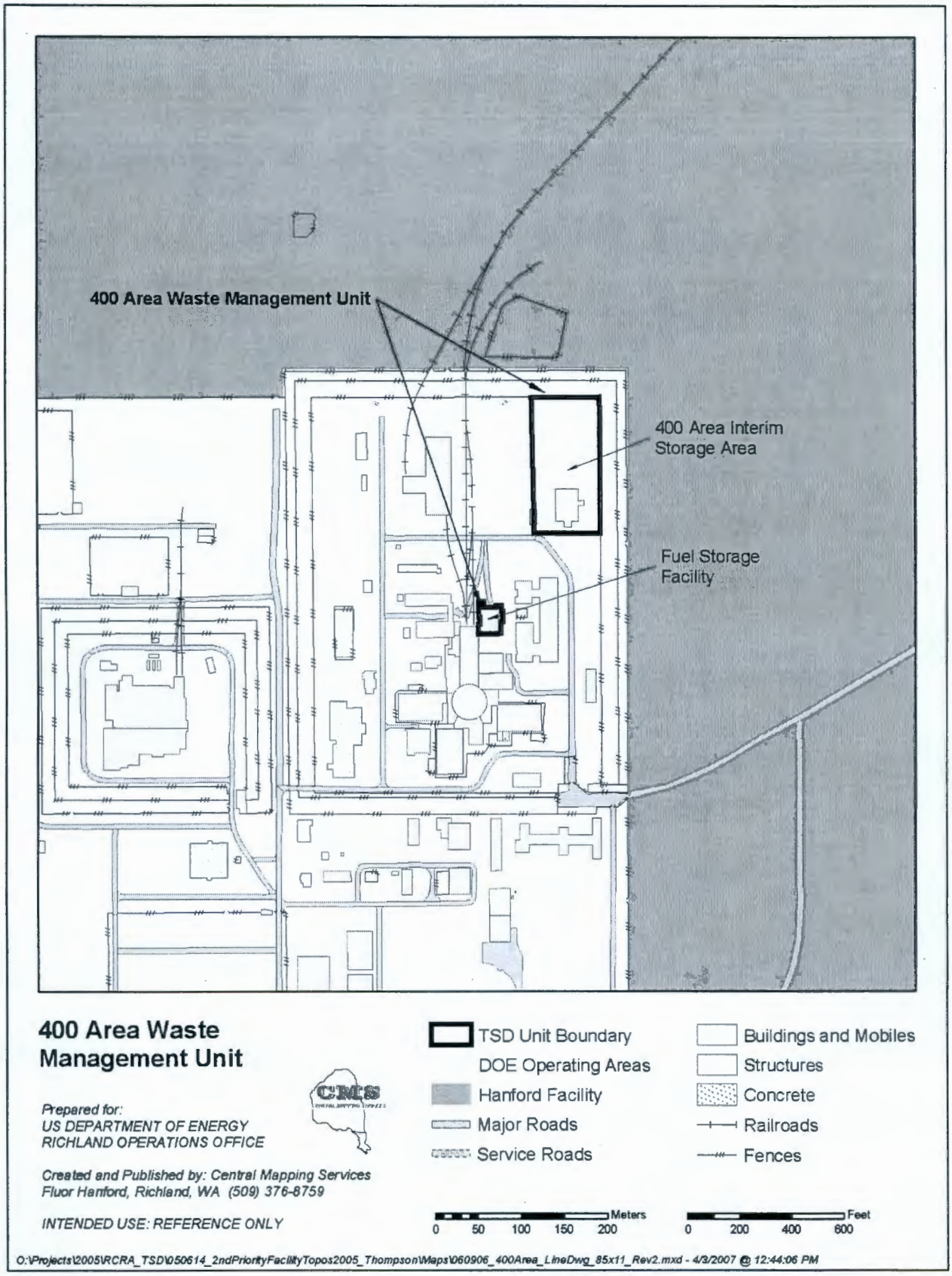
400 Area Waste Management Unit



Fuel Storage Facility (FSF) 8-2006
Building 403



Interim Storage Area (ISA) 8-2006
Building 4718


400 Area Waste Management Unit
400 Area Interim Storage Area
Fuel Storage Facility
400 Area Waste Management Unit
Prepared for:
US DEPARTMENT OF ENERGY
RICHLAND OPERATIONS OFFICE
Created and Published by: Central Mapping Services
Fluor Hanford, Richland, WA (509) 376-8759
INTENDED USE: REFERENCE ONLY
CMS
TSD Unit Boundary
DOE Operating Areas
Hanford Facility
Major Roads
Service Roads
Buildings and Mobiles
Structures
Concrete
Railroads
Fences
Meters
0 50 100 150 200
Feet
0 200 400 600
O:\Projects\2005\RCRA_TSD\050614_2ndPriorityFacilityTopos2005_Thompson\Maps\060906_400Area_LineDwg_85x11_Rev2.mxd - 4/3/2007 @ 12:44:06 PM

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Addendum B **Waste Analysis Plan**

B. WASTE ANALYSIS PLAN [C] B.1

B.1 UNIT DESCRIPTION B.1
B.1.1 Description of Unit Processes and Activities B.1
B.1.2 Identification and Classification of Waste B.1

B.2 CONFIRMATION PROCESS B.1
B.2.1 Pre-Transfer Review B.2
B.2.2 Verification of Waste B.2
B.2.3 Waste Acceptance B.2
B.2.4 Conformance Issue Resolution B.2

B.3 SELECTING WASTE ANALYSIS PARAMETERS B.3

B.4 SELECTING SAMPLING PROCESSES B.3

B.5 SELECTING A LABORATORY, LABORATORY TESTING, AND ANALYTICAL METHODS B.3

B.6 SELECTING WASTE RE-EVALUATION FREQUENCIES B.3

B.7 SPECIAL PROCEDURAL REQUIREMENTS B.3

B.8 RECORDKEEPING B.3

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B. WASTE ANALYSIS PLAN

The purpose of this Waste Analysis Plan (WAP) is to document waste analysis activities associated with the 400 Area WMU to comply with WAC 173-303-300(1), (2), (4), and (5). WAC 173-303-300(3) and (6) are not applicable, as the 400 Area WMU will not receive waste from any offsite facilities. Mixed waste managed in the 400 Area WMU is limited to waste generated in the 400 Area. Descriptions required by WAC 173-303-300(5) are contained in the following sections.

B.1 UNIT DESCRIPTION

The 400 Area WMU is a nonland-based unit located in the 400 Area of the Hanford Facility and contains two container storage dangerous waste management units. The 400 Area WMU is operated in accordance with the provision of WAC 173-303-630. The mission of the 400 Area WMU is to store mixed waste until it is treated. Treatment is not currently provided for mixed waste stored at the 400 Area WMU.

B.1.1 Description of Unit Processes and Activities

The 400 Area WMU includes the FSF (Building 403) and the ISA. The unit boundary is represented by the perimeter of each of these noncontiguous storage locations, as shown on the topographic map related to the Addendum A, Part A Form on file with Ecology.

Addendum A, Part A Form identifies waste quantities and the process design capacity for the 400 Area WMU. Sodium contamination is associated with the sodium used as coolant in the FFTF reactor. The 400 Area WMU will continue to receive sodium-contaminated waste and debris as it is generated from FFTF. In addition, sodium-contaminated waste, generated in association with former FFTF operations and currently in storage at other Hanford Facility locations, could be transferred to the 400 Area WMU for consolidation with other 400 Area-generated waste. Transfers of mixed waste to the 400 Area WMU will be conducted under Permit Condition II.P.2.

B.1.2 Identification and Classification of Waste

Waste types not specifically identified in Addendum A, Part A Form are prohibited from storage in the 400 Area WMU. The waste can only exhibit the characteristics of ignitability, reactivity, and/or corrosivity.

Waste is designated using manufacturers' product information, Material Safety Data Sheets (MSDSs), laboratory analysis provided by the generator, and/or reference material such as Registry of Toxic Effects of Chemical Substances (published by the National Institutes for Occupational Safety and Health). Addendum A, Part A Form identifies dangerous waste numbers for waste types stored at the 400 Area WMU. These dangerous waste numbers and corresponding references are as follows:

Dangerous Waste Number (Characteristic)	Reference
D001 (ignitable)	WAC 173-303-090(5)
D002 (corrosive liquid)	WAC 173-303-090(6)
D003 (reactive)	WAC 173-303-090(7)
WSC2 (corrosive solid)	WAC 173-303-090(6)/104

B.2 CONFIRMATION PROCESS

The confirmation process is the process by which the 400 Area WMU staff will confirm their knowledge about a waste before it is placed into storage to ensure the waste is managed properly. The confirmation process includes completing appropriate pre-transfer reviews and verification steps as described in this section.

B.2.1 Pre-Transfer Review

Pre-transfer review takes place before waste can be placed in the 400 Area WMU. The review focuses on whether the analysis information (e.g., waste profile documentation) is sufficient to determine that the waste can be safely stored and that the waste was generated at the 400 Area. The pre-transfer review will be documented and maintained in the unit-specific operating record. The analysis must include data obtained by testing the waste and/or 'knowledge' of the waste (i.e., sufficient information about a waste to substitute reliably for direct testing of the waste). 'Knowledge' consists of existing published or documented analysis data on the waste or data from waste generated in similar processes, including but not limited to the following:

- MSDSs on chemical products
- Analytical data on the waste or a waste from a similar process
- Interview information
- Logbooks
- Procurement records
- Qualified analytical data
- Procedures and/or methods
- Process flow charts
- Inventory sheets
- Vendor information

B.2.2 Verification of Waste

Verification is an assessment performed at waste receipt to substantiate that the waste stream received at the 400 Area WMU is the same as represented by the analysis information and/or supporting documentation. Verification includes a container a receipt inspection. Documentation to be reviewed as part of verification activities may include the container inventory documentation, a container listing report, and the waste profile documentation. For all TSD locations within the 400 Area WMU, each container or group of containers is inspected before acceptance by waste operations personnel for damage, proper closure, marking, and proper accompanying documentation.

B.2.3 Waste Acceptance

Acceptance of waste into the 400 Area WMU occurs only after the confirmation process (pre-transfer review and verification) is complete. Conformance issues identified during the confirmation process are documented and managed in accordance with Section H.2.4. Conformance issues that must be corrected before waste acceptance include:

- Waste that does not match approved waste profile documentation,
- Designation discrepancy, and
- Packaging discrepancy

B.2.4 Conformance Issue Resolution

A conformance issue is any discrepancy identified during the confirmation process with waste profile documentation, a waste package, or a waste shipment. Discrepancies can be identified during pre-transfer review of a waste stream or during the verification process. If a possible conformance issue is identified, the following actions are taken by the 400 Area WMU staff to resolve the issue:

- Compile all information concerning the possible conformance issue(s),
- Gather additional knowledge that may assist in the resolution of the concern(s), and
- Determine and implement the appropriate course of action to resolve the issue

B.3 SELECTING WASTE ANALYSIS PARAMETERS

Sodium is the material of interest to support safe storage of the waste (including contaminated piping, appurtenances, and debris) at the 400 Area WMU. Sodium is a single element waste (i.e., no other chemical contamination) as it was contained in closed-loop cooling systems throughout FFTF reactor operation. In addition, the ignitable and reactive properties of sodium metal are well known and documented (MSDSs and FFTF operating history), and the sodium waste to be stored in the 400 Area WMU is consistent with these properties. Analytical data exist for the sodium contained in the FFTF cooling system, therefore, no further sampling and analyses of the sodium waste are planned.

Based on known chemical properties of sodium metal, small amounts of concentrated sodium hydroxide and trace amounts of hydrogen may be generated if the sodium comes in contact with water vapor in the air during storage. Due to the potential formation of sodium hydroxide having a pH greater than 12.5, the sodium metal is designated as a corrosive (WSC2). In the event that liquid is identified in sodium waste secondary containment, the liquid will be managed under the generator provisions of WAC 173-303-200 and is beyond the scope of this WAP.

B.4 SELECTING SAMPLING PROCESSES

Additional analytical data are not required to store safely the sodium-contaminated waste at the 400 Area WMU. Therefore, no additional waste sampling is planned.

B.5 SELECTING A LABORATORY, LABORATORY TESTING, AND ANALYTICAL METHODS

Additional analytical data are not required to store safely the sodium-contaminated waste at the 400 Area WMU. Therefore, there is no need to select a laboratory, laboratory testing methods, or analytical methods.

B.6 SELECTING WASTE RE-EVALUATION FREQUENCIES

Additional analytical data are not required to store safely the sodium-contaminated waste at the 400 Area WMU. Therefore, there is no need to select a waste re-evaluation frequency.

B.7 SPECIAL PROCEDURAL REQUIREMENTS

Provisions of WAC 173-303-300(5)(f) are not applicable. Additional analytical data are not required to store safely the sodium-contaminated waste at the 400 Area WMU. Therefore, no special procedural requirements for sampling and analysis apply.

The 400 Area WMU will not conduct any land disposal restrictions (LDR) treatment of waste in storage. Therefore, the LDR requirements applicable to the 400 Area WMU are limited to the record keeping requirements in WAC 173-303-380(1)(o) and LDR reporting requirements under the Hanford Federal Facility Agreement and Consent Order. Mixed waste stored in the 400 Area WMU will be treated in accordance with Permit Condition II.S.

B.8 RECORDKEEPING

Confirmation process records, described in Section H.2, will be maintained in accordance with Permit Conditions II.I.1 and II.I.1.b. These records will be maintained in the 400 Area WMU unit-specific portion of the Facility Operating Record from the time the waste is received until a period of ten years following certification of closure.

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Addendum E **Contingency Plan**

E. CONTINGENCY PLAN [G] E.1
E.1 BUILDING EVACUATION ROUTING (BUILDING LAYOUT) E.3
E.2 BUILDING EMERGENCY DIRECTOR E.3
E.3 IMPLEMENTATION OF THE PLAN E.3
E.3.1 Protective Action Responses E.4
E.3.2 Response to Facility Operations Emergencies E.5
E.3.3 Prevention of Recurrence or Spread of Fires, Explosions, or Releases E.7
E.3.4 Incident Recovery and Restart of Operations E.7
E.3.5 Incompatible Waste E.8
E.3.6 Post Emergency Equipment Maintenance and Decontamination E.8
E.4 EMERGENCY EQUIPMENT E.8
E.4.1 Fixed Emergency Equipment E.8
E.4.2 Portable Emergency Equipment E.9
E.4.3 Communications Equipment/Warning Systems E.9
E.4.4 Personal Protective Equipment E.10
E.4.5 Spill Control and Containment Supplies E.10
E.4.6 Incident Command Post E.10
E.5 REQUIRED REPORTS E.10
E.6 PLAN LOCATION AND AMENDMENTS E.10
E.7 BUILDING EMERGENCY ORGANIZATION BUILDING EMERGENCY DIRECTOR E.11

Figures

Figure E.1. FFTF Primary Staging Area E.12
Figure E.2. FFTF Alternate Staging Area E.13

Table

Table E.1. Hanford Facility Documents Containing Contingency Plan Requirements of WAC 173 303-350(3) E.1

OFFICIAL USE ONLY
May be exempt from public release under the Freedom of Information Act (5 U.S.C. 552)Exemption number(s) and category: Exemption 2
Circumvention of Statute
Department of Energy review required before public release

OFFICIAL USE ONLY
May be exempt from public release under the Freedom of Information Act (5 U.S.C. 552)Exemption number(s) and category: Exemption 2
Circumvention of Statute
Department of Energy review required before public release

CONTACT:

Greta Davis, State of Washington Department of Ecology
3100 Port of Benton, Richland, 99352
509-372-7894

Addendum F — 400 Area Waste Management Unit Training Matrix

	Training Category*				
Hanford Facility RCRA Permit, Attachment 33, Chapter 8.0 Training Category	General Hanford Facility training	Contingency Plan training	Emergency Coordinator training	Operations training	
400 Area WMU DWTP implementing plan	Orientation Program	Emergency Response (contingency plan)	Emergency Coordinator Training	General Waste Management	Container Management
Job title/position					
Regulatory Compliance Staff	X	X		X	X
Environmental Compliance Officer	X	X		X	
Building Emergency Director	X		X		
Non-Resident Waste Service Provider	X			X	
Non-Resident Sampler	X			X	

*Refer to the 400 Area WMU Dangerous Waste Training Plan (DWTP) for a complete description.

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Addendum G **Closure & Financial Assurance**

G. CLOSURE AND FINANCIAL ASSURANCE G.1
G.1 CLOSURE PLAN G.1
G.1.1 Closure Performance Standard G.1
G.1.2 Closure Activities G.1
G.1.3 Maximum Extent of Operation and Maximum Waste Inventory G.4
G.2 SCHEDULE FOR CLOSURE G.4
G.3 CERTIFICATION OF CLOSURE G.4

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G. CLOSURE AND FINANCIAL ASSURANCE

The Closure Plan for the 400 Area WMU addresses closure of the two container storage units referred to as the Fuel Storage Facility (FSF) and the Interim Storage Area (ISA). DOE and the contractors are not subject to Financial Assurance as described in Permit Condition II.H, Recordkeeping and Reporting. This closure plan is based on closure by removal or decontamination, or "clean closure," and the general and unit-specific closure criteria in WAC 173-303-610(2) and WAC 173-303-630(10). All mixed waste will be removed from the FSF and ISA at the time of closure.

G.1 CLOSURE PLAN

The following sections document the required closure performance standards and necessary closure activities to close the two container storage units at the 400 Area WMU.

G.1.1 Closure Performance Standard

The closure performance standard for the FSF and the ISA, based on "clean closure," are established for structures, equipment, bases, and liners under WAC 173-303-610(2)(b)(ii). Ecology may establish closure standards under this authority on a case-by-case basis. FSF and ISA will be considered clean when surfaces of structures, equipment, bases, liners, etc., meet the clean debris surface standard in 40 CFR 268.45, Table 1 footnote 3. Specifically, this standards requires that potentially contaminated surfaces when viewed without magnification, shall be free of all visible contaminated soil and dangerous waste except that residual staining from soil and waste consisting of light shadows, slight streaks, or minor discolorations, and soil and waste in cracks, crevices and pits may be present provided that such staining and waste and soil in cracks, crevices, and pits shall be limited to no more than 5% of each square inch of surface area.

The clean closure standard will be achieved by documenting the absence of, or removing the mixed waste inventory. This includes all mixed waste and dangerous waste constituents from the 400 Area WMU. The operating practices used for waste management at the FSF and the ISA will identify and cleanup any spills or releases that may occur during operation of the units, and document in the unit-specific portion of the Hanford Facility operating record the occurrence of a response to any spill or release. Cleanup of spills and releases from waste management operations will be consistent with the closure performance standard established in this plan, so that no additional cleanup or verification will be necessary at the time of closure. [WAC 173-303-610(2) and WAC 173-303-630(10)].

Contamination of soil, groundwater, surface water, or air related to operations at the FSF and ISA is not anticipated to be a concern at the time of closure. Therefore, the closure standards identified in WAC 173-303-610 (2)(b)(i) for soils, ground water, surface water, and air are not discussed at this time. However, in the unlikely event that soil contamination is found, this Closure Plan will be amended with an approved Permit modification and in accordance with WAC 173-303-610(3)(b) to incorporate soil closure performance standards.

G.1.2 Closure Activities

The 400 Area WMU is operated as a clean, well-maintained dangerous waste management unit. Detailed records are and will continue to be maintained of the materials and waste stored at the FSF and ISA, pursuant to permit condition III.16.B.2.c. Spills and other unusual occurrences are responded to and documented pursuant to Section G.1.1. Clean closure of the 400 Area WMU container storage units will demonstrate that the storage areas are not contaminated with mixed waste or dangerous waste constituents. Contamination from the FSF and ISA operations is not expected to be present at the time of closure, since permit condition governing dangerous waste management activities require that any spills

or releases be promptly identified and cleaned up to a performance standard equivalent to the clean closure performance standard established in this closure plan. Therefore, no decontamination is expected to be necessary at the time of closure, no sampling is planned in support of clean closure, and no other closure activities are anticipated.

If evaluation of documentation such as spill records, field observations, and personnel interviews indicate the likelihood of waste contamination that was not previously cleaned up, or that the results of past spill cleanup cannot be verified, this Closure Plan will be amended with an approved Permit modification and in accordance with Permit Condition II.J.3. Any unanticipated decontamination activities, sampling and analysis activities, or other activities required for clean closure will be accomplished in accordance with the amended Closure Plan. The Closure Plan will contain the necessary provisions at the time of closure.

At a minimum closure activities will accomplish the following.

- Remove stored waste inventory and transfer to a permitted on-site dangerous waste management unit, or to an off-site facility meeting the definition of a "designated facility" in WAC 173-303-040, incorporated by reference, as appropriate.
- Perform document review and interview personnel to determine spill history and ensure spills were completely cleaned up consistent with closure performance standards for the FSF and ISA
- Verify that performance standard has been achieved
- Obtain certification described in Section G.3 upon performance standard verification
- Prepare a Permit modification in accordance with Permit Condition II.J.3 to amend the Closure Plan and include the additional work requirements necessary to achieve clean closure upon an initial finding that the performance standard(s) was not achieved.

Detailed information for the closure activities are provided as follows.

G.1.2.1 Remove Waste Inventory

All containers of waste will be removed from each container storage dangerous waste management unit. If the containers are removed from the FSF to the ISA to close the FSF in advance of the ISA, a waste transfer to consolidate wastes in the ISA will be accomplished without the need for specialized equipment. Waste transfers will be in compliance with WAC 173-303-380(1)(b).

If the containers require transportation from the FSF or the ISA to another on-site dangerous waste management unit or off-site TSD Facility, special transportation containment will be designed and fabricated for the waste stored in the FSF. For waste stored in the ISA, specialized transportation containment and/or packaging will be determined on a case-by-case basis. In addition, the receiving on-site dangerous waste management unit or off-site TSD Facility may require time to modify documents in order to receive the containers of waste.

No waste treatment capacity is currently available for the inventory of wastes expected to be managed at the FSF or the ISA. No waste is expected to be generated during closure activities following removal of the waste inventory. This closure plan will be amended in accordance with Permit Condition II.J.3 in the event that waste will be generated.

If the ISA never managed any waste at the time of closure, the inspection/survey below will document that condition.

G.1.2.2 Perform Document Review and Interview Personnel to Determine Spill History.

Because the 400 Area WMU is and will continue to be a well operated dangerous waste management unit, the operating record will contain documentation of how any spills were properly cleaned up. Proper clean up of spills will be determined by demonstrating any residuals from the spills have been removed. The operating record will show how the spill was cleaned up. A visual performance standard will allow for clean closure of structures, equipment, bases, liners, etc. The spill clean up records in the operating record will become a basis to support clean closure of the ISA gravel areas without the need for sampling. If review of the operating record reveals a problem, the Closure Plan will be amended to include the necessary steps to satisfy the closure performance standard.

G.1.2.3 Verify Performance Standard Achievement

After all waste has been removed from a container storage dangerous waste management unit(s) and the document review has been completed, a visual inspection/survey will be performed on any structures, equipment, bases, liners, etc, to verify that the surface meets the clean debris surface in 40 CFR 268.45 Table 1 footnote 3, incorporated by reference. The inspection/survey will evaluate all surfaces, with special emphasis on information derived from evaluation of the operation records, logbooks, and personnel interviews.

If no spills occurred in the gravel area of the ISA, the visual inspection/survey will document that "no spills occurred." If there were spills in the gravel area and the document review shows that the spills were completely and properly cleaned up, the visual inspection/survey will document the review finding(s). If information indicates from evaluation of the operation records, logbooks, and personnel interviews that contamination is possible from TSD unit activities, this Closure Plan will be amended with an approved Permit modification in accordance with Permit Condition II.J.3 to incorporate the steps and requirements to achieve clean closure.

Once the inspection/survey is complete and results verify clean closure achievement, the certification described in Section G.3 will be obtained.

G.1.2.4 Decontaminate and/or Remove Equipment

No decontamination or equipment removal is expected to be required to achieve clean closure. In the event a problem occurs where decontamination or equipment removal is necessary, a Permit modification will be prepared to amend the closure plan in accordance with Permit Condition II.J.3.

G.1.2.5 Decontaminate Structures

No structures will require decontamination to achieve clean closure. In the event a problem occurs where structures will require decontamination, a Permit modification will be prepared to amend the closure plan in accordance with Permit Condition II.J.3.

G.1.2.6 Remediate Soils

Soil remediation activities are not expected to be necessary as the FSF and ISA are anticipated to be well maintained. Any spills occurring during the operating life of the FSF and ISA are expected to have been properly and completely cleaned up to standards consistent with the closure performance standards. In the event that sampling is necessary for the surrounding gravel areas of the ISA, the Closure Plan will be amended through a Permit modification in accordance with Permit Condition II.J.3.

G.1.3 Maximum Extent of Operation and Maximum Waste Inventory

As authorized by Permit Condition III.16.B.1, the FSF and ISA provide storage capacity for waste generated from decommissioning of the Fast Flux Test Facility (FFTF) before final treatment and/or disposal. The estimated maximum waste inventory is consistent with the combined storage capacity of the FSF and the ISA, or 20,000 gallons.

G.2 SCHEDULE FOR CLOSURE

In accordance with WAC 173-303-610(3)(c), notification to Ecology is required at least 45 days prior to the start of closure of the FSF or the ISA.

The closure schedule is based on the time required to perform applicable closure activities described in Section G.1.2. Closure of the FSF and the ISA will be completed 180 days after the start of closure activities at each unit, respectively. When a closure date is established for a container storage dangerous waste management unit(s), the schedule will be evaluated, including any additional closure activities required for clean closure. If Closure Plan modifications are necessary to achieve clean closure, a revised schedule will be proposed as part of the Permit modification package prepared in accordance with Permit Condition II.J.3.

G.3 CERTIFICATION OF CLOSURE

Within 60 days of completion of closure activities required by this closure plan, the Permittees will submit to the Department by registered mail, a certification that the dangerous waste management unit(s) has been closed in accordance with the specifications in this Plan that are in effect at the time of completion of closure activities. This certification of closure will address only requirements of this closure plan covered by the completed closure activities (i.e., either the FSF or the ISA, or both). This certification will be signed by the Permittees and an independent registered professional engineer. The independent registered professional engineer certification is to confirm that the activities took place and that the unit was closed in accordance with the approved Closure Plan. Documentation supporting the independent registered professional engineer's certification must be furnished to Ecology upon request.

Addendum H — Inspection Plan

H. INSPECTION PLAN H.1
H.1 GENERAL INSPECTION REQUIREMENTS H.1
H.1.1 Types of Inspections H.1
H.1.2 Frequency of Inspections H.1
H.2 SCHEDULE FOR REMEDIAL ACTION FOR PROBLEMS REVEALED [F-2C] H.2

Tables

Table H.1. Inspection Schedule H.2

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H. INSPECTION PLAN

This section describes the method and schedule for inspection of the 400 Area WMU. The purpose of the inspections are to prevent malfunctions and deterioration, operating errors, discharges, identify leaking containers, improperly stored containers, and degradation of containment and safety equipment and/or systems (e.g., inert gas pressure in feed line). These inspections help to ensure that situations do not exist that might cause or lead to the release of waste to the environment or that might pose a threat to human health. Abnormal conditions identified by inspections are corrected in accordance with WAC 173-303-320(3).

H.1 GENERAL INSPECTION REQUIREMENTS

The content and frequency of inspections are described in this section. Inspections, implemented through operating requirements, are documented on inspection checklists and log sheets. Inspection records are maintained in accordance with Permit Condition II.I.1, and contain the following information:

- Date and time of inspection,
- Printed name and the handwritten signature of the inspector,
- Notation of the observations made, and
- Date and nature of any repairs or remedial actions taken

The inspection checklists consist of a listing of items that are to be assessed during each inspection. A yes/no response is made for each listed item. A 'yes' response means that the item is in compliance with the conditions stated on the checklist. Any problems identified during the inspection, as indicated by a 'no' response on the checklist, are reported to the Operations Manager.

H.1.1 Types of Inspections

Each week a qualified person performs an inspection of the active 400 Area WMU storage areas and containers for any signs of malfunctions, deterioration, discharges, and other anomalies. Specific items and/or problems to be noted during weekly inspections include the following:

- Condition of concrete floor, curbing, and walls (FSF)
- Appropriate safety and packaging equipment
- Container structural integrity
- Containers closed
- Inert gas pressure in feed line to CCP boxes in the FSF
- Significant corrosion of containers
- Evidence of spills or leaks
- Container labels and markings in place, legible, and unobscured
- Moisture in modules including condensation (ISA storage modules)

Quarterly, the 400 Area WMU personnel conduct inspections and tests of safety equipment. These inspections and tests include portable fire extinguishers, first aid equipment, and spill kits. For addition information, refer to Table H.1, Inspection Schedule.

H.1.2 Frequency of Inspections

The 400 Area WMU inspections are performed by qualified personnel. The following inspection frequencies exist (refer to Table H.1):

- Weekly container inspections
- Quarterly inspections
- Daily inspections of those portions of the 400 Area WMU that are in the process of receiving waste or transferring waste out to document any deficiencies noted and to immediately bring deficiencies to the attention of the Operations Manager.
- Annual ignitable/reactive waste storage area inspections

H.2 SCHEDULE FOR REMEDIAL ACTION FOR PROBLEMS REVEALED [F-2C]

Consistent with WAC 173-303-320(3), if inspections identify leaks, spills, and/or precipitation in the secondary containment, the resultant material will be removed on a schedule that prevents hazards to human health and the environment. If corrosion or other obvious structural deficiency is observed on containers, corrective actions shall be pursued in a timeframe established by the Operations Manager.

On receipt and before containers are accepted for storage in the 400 Area WMU, personnel inspect each container to confirm appropriate documentation, labeling, and soundness of containers. Depending on the severity of any container anomalies, corrective actions could range from continued monitoring to correcting on discovery or longer if procurement of needed materials and personnel are required. Other conditions that are not a threat to human health and the environment will be dispositioned in a timeframe established by the Operations Manager.

Table H.1. Inspection Schedule

Requirement Description	Inspection Frequency	Types of Problems
Inspections of those portions of the 400 Area WMU that are in process of receiving or transferring waste out	Daily	Document any deficiencies noted and immediately bring the deficiencies to the attention of the Operations Manager
Container storage areas (FSF)	Weekly	Condition of concrete floor, container structural integrity, containers closed, inert gas pressure in feed line to large boxes, significant corrosion of containers, evidence of leaks, spills, accumulated liquids, and open and improperly sealed containers, container labels and markings in place, legible, and unobstructed
Container storage, large boxes, and unique components (ISA)	Weekly	Condition of containers/large boxes/unique components structural integrity, containers closed, significant corrosion of containers, evidence of leaks, spills, accumulated liquids, and open and improperly sealed containers, container labels and markings in place, legible, and unobstructed, and moisture and condensate in the storage modules
Portable fire extinguishers, first aid kits, spill response kits	Quarterly	Check for equipment not present and test, as appropriate
Ignitable or reactive waste	Annual	Storage in compliance with WAC 173-303-395(1)(d)