

# START

004114

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

Department of Ecology  
Nuclear Waste Program  
P.O. Box 47600  
Olympia, Washington 98504-7600  
Telephone: (360) 407-7132

Issued in accordance with the applicable provisions of the Hazardous Waste Management Act, Chapter 70.105 RC and the regulations promulgated thereunder in Chapter 173-303 WAC.

ISSUED TO:

U.S. Department of Energy  
Richland Operations Office  
(Co-Operator)  
P.O. Box 850  
Richland, Washington 99352  
Telephone: (509) 376-7395

Bechtel Hanford, Inc.  
(Co-operator)  
P.O. Box 250  
Richland, Washington 99352  
Telephone: (509) 376-4045

Westinghouse Hanford Company  
(Co-Operator)  
P.O. Box 1970  
Richland, Washington 99352  
Telephone: (509) 376-7803

Pacific Northwest Laboratory  
(Co-Operator)  
P.O. Box 999  
Richland, Washington 99352  
Telephone: (509) 375-2201

This Permit, as modified on April 28, 1995, is effective as of May 28, 1995, and shall remain in effect through September 27, 2004, unless revoked and reissued under WAC 173-303-830(3), or terminated under WAC 173-303-830(5), or continued in accordance with WAC 173-303-806(7).

ISSUED BY: WASHINGTON STATE DEPARTMENT OF ECOLOGY

  
Michael Wilson, Program Manager  
Nuclear Waste Program  
Department of Ecology

Date: 4/28/95



TABLE OF CONTENTS

1		
2		
3		
4		
5	TABLE OF CONTENTS . . . . .	4
6		
7	LIST OF ATTACHMENTS . . . . .	6
8		
9	INTRODUCTION . . . . .	9
10		
11	DEFINITIONS . . . . .	12
12		
13	ACRONYMS . . . . .	14
14		
15	PART I - STANDARD CONDITIONS . . . . .	14
16	I.A. EFFECT OF PERMIT . . . . .	15
17	I.B. PERSONAL AND PROPERTY RIGHTS . . . . .	15
18	I.C. PERMIT ACTIONS . . . . .	16
19	I.D. REVERSIBILITY . . . . .	19
20	I.E. PERMITS AND REQUIREMENTS . . . . .	25
21	I.F. SIGNATORY REQUIREMENT . . . . .	25
22	I.G. CONFIDENTIAL INFORMATION . . . . .	25
23	I.H. DOCUMENTS TO BE MAINTAINED AT FACILITY SITE . . . . .	26
24		
25	PART II - GENERAL FACILITY CONDITIONS . . . . .	26
26	II.A. FACILITY CONTINGENCY PLAN . . . . .	26
27	II.B. PREPAREDNESS AND PREVENTION . . . . .	27
28	II.C. PERSONNEL TRAINING . . . . .	27
29	II.D. WASTE ANALYSIS . . . . .	29
30	II.E. QUALITY ASSURANCE/QUALITY CONTROL . . . . .	36
31	II.F. GROUNDWATER AND VADOSE ZONE MONITORING . . . . .	37
32	II.G. SITING CRITERIA . . . . .	37
33	II.H. RECORDKEEPING AND REPORTING . . . . .	38
34	II.I. FACILITY OPERATING RECORD . . . . .	40
35	II.J. FACILITY CLOSURE . . . . .	41
36	II.K. SOIL/GROUNDWATER CLOSURE PERFORMANCE STANDARDS . . . . .	43
37	II.L. DESIGN AND OPERATION OF THE FACILITY . . . . .	45
38	II.M. SECURITY . . . . .	45
39	II.N. RECEIPT OF DANGEROUS WASTES GENERATED OFF-SITE . . . . .	45
40	II.O. GENERAL INSPECTION REQUIREMENTS . . . . .	46
41	II.P. MANIFEST SYSTEM . . . . .	47
42	II.Q. ON-SITE TRANSPORTATION . . . . .	47
43	II.R. EQUIVALENT MATERIALS . . . . .	48
44	II.S. LAND DISPOSAL RESTRICTIONS . . . . .	48
45	II.T. ACCESS AND INFORMATION . . . . .	48
46	II.U. MAPPING OF UNDERGROUND PIPING . . . . .	50
47	II.V. MARKING OF UNDERGROUND PIPING . . . . .	51
48	II.W. OTHER PERMITS AND/OR APPROVALS . . . . .	51
49	II.X. SCHEDULE EXTENSIONS . . . . .	52

Permit Number: WA7890008967  
Revision Number 1  
Expiration Date: September 27, 2004  
Page 3 of 90

1		
2	PART III - UNIT-SPECIFIC CONDITIONS FOR FINAL STATUS OPERATIONS . . . . .	52
3	CHAPTER 1 . . . . .	52
4	616 Nonradioactive Dangerous Waste Storage Facility . . . . .	62
5	CHAPTER 2 . . . . .	62
6	305-B Storage Facility . . . . .	70
7		
8	PART IV - CORRECTIVE ACTIONS FOR PAST PRACTICES . . . . .	71
9		
10	PART V - UNIT-SPECIFIC CONDITIONS FOR UNITS UNDERGOING CLOSURE . . . . .	71
11	CHAPTER 1 . . . . .	71
12	183-H Solar Evaporation Basin . . . . .	76
13	CHAPTER 2 . . . . .	76
14	300 Area Solvent Evaporator . . . . .	78
15	CHAPTER 3 . . . . .	78
16	2727-S Nonradioactive Dangerous Waste Storage Facility . . . . .	80
17	CHAPTER 4 . . . . .	80
18	Simulated High Level Waste Slurry Treatment and Storage Unit . . . . .	82
19	CHAPTER 5 . . . . .	84
20	216-B-3 Expansion Ponds . . . . .	84
21	CHAPTER 6 . . . . .	84
22	200 West Area Ash Pit Demolition Site . . . . .	86
23	CHAPTER 7 . . . . .	86
24	2101-M Pond . . . . .	87
25	CHAPTER 8 . . . . .	87
26	216-B-3 Expansion Ponds . . . . .	86
27		
28		

LIST OF ATTACHMENTS

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

Attachment 1	Hanford Federal Facility Agreement and Consent Order, (As Amended)
Attachment 2	Hanford Facility Legal Description
Attachment 3	Permit Application Matrix
Attachment 4	Hanford Facility Contingency Plan, Revision 1, June 1993
Attachment 5	Purgewater Management Plan, July 1990
Attachment 6	Hanford Well Remediation and Decommissioning Plan, Revision 0
Attachment 7	Policy on Remediation of Existing Wells and Acceptance Criteria for RCRA and CERCLA, June 1990
Attachment 8	616 Nonradioactive Dangerous Waste Storage Facility Part A & Part B Permit Applications, Revision 2, September 1991
Attachment 9	616 Nonradioactive Dangerous Waste Shipping Lists
Attachment 10	616 Nonradioactive Dangerous Waste Facility Description of Procedures
Attachment 11	183-H Solar Evaporation Basins Closure/Postclosure Plan, Revision 3, June 1991
Attachment 12	Decommissioning Work Plan "Concrete Sampling - 183-H Solar Evaporation Basins" (DWP-H-080-00001) 8-26-91, Revision A-3

Permit Number: WA7890008967  
Revision Number 1  
Expiration Date: September 27, 2004  
Page 5 of 90

1	Attachment 13	Decommissioning Work Plan "Core Drill Sampling - 183-H	
2		Solar Evaporation Basins (Phase I)" (DWP-H-080-00005)	
3		2-8-91, Revision A-1	
4			
5	Attachment 14	"183-H Solar Evaporation Basins Vadose Zone Sampling	
6		Plan" (WHC-SD-EN-AP-056) 6-25-91, Revision 0	
7			
8	Attachment 15	Decommissioning Work Plan "Berm Removal for 183-H	
9		Solar Evaporation Basins" (DWP-H-026-00008) 1-16-91,	
10		Revision A 0	
11			
12	Attachment 16	300 Area Solvent Evaporator Closure Plan, Revision 3b,	
13		September 1992	
14			
15	Attachment 17	2727-S Nonradioactive Dangerous Waste Storage Facility	
16		Closure Plan, Revision 3, January 1992	
17			
18	Attachment 18	305-B Storage Facility Part A and Part B Permit	
19		Applications Revision 2, October 1992	
20			
21	Attachment 19	Simulated High Level Waste Slurry TSD Closure Plan	✓
22			
23	Attachment 20	218-E-8 Borrow Pit Demolition Site Closure Plan	✓
24			
25	Attachment 21	200 West Ash Pit Demolition Site Closure Plan	✓
26			
27	Attachment 22	2101-M Pond Closure Plan	✓
28			
29	Attachment 23	216-B-3 Expansion Ponds Closure Plans	✓
30			

INTRODUCTION

Pursuant to Chapter 70.105 Revised Code of Washington (RCW), the Hazardous Waste Management Act (HWMA) of 1976, as amended, Chapter 70.105D RCW, the Model Toxics Control Act, and regulations promulgated thereunder by the Washington State Department of Ecology (hereafter called the Department), codified in Chapter 173-303 Washington Administrative Code (WAC), Dangerous Waste Regulations, a Dangerous Waste Permit is issued to the U.S. Department of Energy - Richland Operations Office (DOE-RL), (owner/operator), and its contractors (Westinghouse Hanford Company (Westinghouse Hanford) (co-operator), Pacific Northwest Laboratory (PNL) (co-operator), and Bechtel Hanford, Incorporated (BHI) (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 U.S. Environmental Protection Agency's, (hereafter call the Agency) Hazardous and Solid Waste Amendments portion of the Resource Conservation and Recovery Act Permit for the Treatment, Storage, and Disposal of Hazardous Waste (HSWA Permit), constitutes the Resource Conservation and Recovery Act Permit (RCRA Permit) for the Hanford Facility. Use of the term "Permit" within the Dangerous Waste Permit shall refer to the Dangerous Waste Permit while use of the term "Permit" within the HSWA Permit shall refer to the HSWA Permit. Use of the same term in both the Dangerous Waste Permit and the HSWA Permit, shall have the standard meaning associated with the activities addressed by the Permit in which the term is used. Such meanings shall prevail except where specifically stated otherwise.

The Permittees shall 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 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 (FFACO, Attachment 1). The Permittees shall 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'

1 misrepresentation of any relevant facts at any time, shall be grounds for the  
2 termination or modification of this Permit and/or initiation of an enforcement  
3 action, including criminal proceedings. The Permittees shall inform the  
4 Department of any deviation from Permit Conditions or changes in the  
5 information on which the application is based which would affect either the  
6 Permittees' ability to comply or actual compliance with the applicable  
7 regulations or Permit Conditions or which alters any Condition of this Permit  
8 in any way.  
9

10 The Department shall enforce all Conditions of this Permit for which the State  
11 of Washington is authorized, or which are "state-only" provisions (i.e.,  
12 Conditions broader in scope or more stringent than the Federal RCRA program).  
13 Any challenges of any Permit Condition may be appealed in accordance with WAC  
14 173-303-845. In the event that any Permit Condition is challenged by any  
15 Permittee under WAC 173-303-845, the Department may stay any such Permit  
16 Condition as it pertains to all Permittees in accordance with the same terms  
17 of any stay it grants to the challenging Permittee. If such a stay is  
18 granted, it will constitute a "stay by the issuing agency" within the meaning  
19 of RCW 19.212.020(1).  
20

21 This Permit has been developed to allow a step-wise permitting process of the  
22 Hanford Facility to ensure the proper implementation of the FFACO. In order  
23 to accomplish this, this Permit consists of five (5) Parts.  
24

25 Part I, **Standard Conditions**, contains Conditions which are similar to those  
26 appearing in all dangerous waste permits.  
27

28 Part II, **General Facility Conditions**, combines typical dangerous waste Permit  
29 Conditions with those Conditions intended to address issues specific to the  
30 Hanford Facility. Where appropriate, the General Facility Conditions apply to  
31 all final status dangerous waste management activities at the Facility. Where  
32 appropriate, the General Facility Conditions also address dangerous waste  
33 management activities which may not be directly associated with distinct  
34 treatment, storage, and disposal (TSD) units or which may be associated with  
35 many TSD units (i.e., spill reporting, training, contingency planning, etc.).  
36

37 Part III, **Unit-Specific Conditions for Operating Units**, contains those Permit  
38 requirements which apply to each individual TSD unit operating under final  
39 status. Conditions for each TSD unit are found in a Chapter dedicated to that  
40 TSD unit. These unit-specific Chapters contain references to Standard and  
41 General Conditions (Parts I and II), as well as additional requirements which  
42 are intended to ensure that each TSD unit is operated in an efficient and  
43 environmentally protective manner.  
44

45 Part IV, **Corrective Actions for Past Practice**, references the Agency's HSWA  
46 Permit. The HSWA Permit contains those requirements that apply to the  
47 identification of Solid Waste Management Units (SWMUs) at the Facility and  
48 conduct of investigations and remediations at such SWMUs. The HSWA Permit  
49 addresses both SWMUs that are located on the USDOE managed portions of the

1 Facility as well as SWMUs which are not located on USDOE managed property  
2 (i.e., leased lands). Any SWMUs located on USDOE managed property are, or  
3 will be, included in the FFACO and assigned to operable units. The processes  
4 and procedures to be followed, and the schedules of compliance for  
5 investigation and subsequent remediation, will be contained in the FFACO.  
6 SWMUs not located on USDOE managed property will undergo investigations and  
7 remediations, as necessary, in accordance with the requirements and schedules  
8 identified in the HSWA Permit.

9  
10 It is intended that, once the Department receives authorization from the  
11 Agency to implement the Corrective Action provisions, these requirements will  
12 be incorporated into this Part through a Permit modification. Until the  
13 Department receives authorization for the Corrective Action provisions of  
14 RCRA, the Agency shall maintain regulatory lead for these requirements.

15  
16 Part V, **Unit-Specific Conditions for Units Undergoing Closure**, contains those  
17 requirements which apply to those specific TSD units included in this Part  
18 that are undergoing closure. In accordance with Section 5.3. of the Action  
19 Plan of the FFACO, all TSD units that undergo closure, irrespective of permit  
20 status, shall be closed pursuant to the authorized State Dangerous Waste  
21 Program in accordance with WAC 173-303-610. Requirements for each TSD unit  
22 undergoing closure are found in a Chapter dedicated to that TSD unit. These  
23 unit-specific Chapters contain references to Standard Conditions (Part I) and  
24 General Conditions (Part II), as well as additional requirements which are  
25 intended to ensure that each TSD unit is closed in an efficient and  
26 environmentally protective manner

27  
28  
29

DEFINITIONS

All definitions contained in the FFACO, May 1989, as amended, are hereby incorporated, in their entirety, by reference into this Permit, except that any of the definitions used below, (a) through (n) shall supersede any definition of the same term given in the FFACO. However, the Permit is intended to be consistent with the FFACO.

All definitions contained in WAC 173-303-040 are hereby incorporated, in their entirety, by reference into this Permit, except that any of the definitions used below, (a) through (n), shall supersede any definition of the same term given in WAC 173-303-040.

Where terms are defined in both Chapter 173-303 WAC and the FFACO, the definitions contained in Chapter 173-303 WAC shall supersede any definition of the same term given in the FFACO.

Where terms are not defined in the regulations, the Permit or the FFACO, the meaning associated with such terms shall be defined by a standard dictionary reference or the generally accepted scientific or industrial meaning of the term.

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 "**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 or Part V of this Permit. In developing a critical system list, or in the absence of a critical system list, WAC 173-303-830 modifications shall be considered.
- b. The term "**Contractor(s)**" means, unless specifically identified otherwise in this Permit or attachments, Westinghouse Hanford Company (Westinghouse Hanford), Pacific Northwest Laboratory (PNL), and Bechtel Hanford, Inc. (BHI).
- c. 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 word "dangerous waste" shall refer to the full universe of wastes regulated by Chapter 70.105

1 RCW and Chapter 173-303 WAC (including dangerous waste, hazardous  
2 waste, extremely hazardous waste, mixed waste and acutely  
3 hazardous waste).

- 4
- 5 d. The term "**Days**" means calendar days unless specifically identified  
6 otherwise. Any submittal, notification, or recordkeeping  
7 requirement that would be due under the Conditions of this Permit  
8 on a Saturday, Sunday, or federal or state holiday shall be due on  
9 the following business day unless specifically specified otherwise  
10 in the Permit.
- 11
- 12 e. The term "**Department**" means the Washington State Department of  
13 Ecology, (with the address as specified on page one (1) of this  
14 Permit).
- 15
- 16 f. The term "**Director**" means the Director of the Washington State  
17 Department of Ecology or a designated representative. The Program  
18 Manager of the Nuclear Waste Program (with the address as  
19 specified on page one (1) of this Permit) is a duly authorized and  
20 designated representative of the Director for purposes of this  
21 Permit.
- 22
- 23 g. The term "**Facility**" means all contiguous land, and structures,  
24 other appurtenances, and improvements on the land used for  
25 recycling, reusing, reclaiming, transferring, storing, treating,  
26 or disposing of dangerous waste. The legal and physical  
27 description of the Facility is set forth in Attachment 2 of this  
28 Permit.
- 29
- 30 h. The term "**FFACO**" means the Hanford Federal Facility Agreement and  
31 Consent Order, as amended.
- 32
- 33 i. The term "**RCRA Permit**" means the Dangerous Waste Portion of the  
34 RCRA Permit for the Treatment, Storage, and Disposal of Dangerous  
35 Waste (Dangerous Waste Permit) issued by the Washington State  
36 Department of Ecology, pursuant to Chapter 70.105 RCW and Chapter  
37 173-303 WAC coupled with the HSWA Portion of the RCRA Permit for  
38 the Treatment, Storage, and Disposal of Hazardous Waste (HSWA  
39 Permit) issued by the EPA, Region 10, pursuant to 42 U.S.C. 6901  
40 et seq. and 40 CFR Parts 124 and 270.
- 41
- 42 j. The term "**Permittees**" means the United States Department of Energy  
43 (owner/operator), Westinghouse Hanford Company (co-operator),  
44 Bechtel Hanford, Inc. (co-operator), and Pacific Northwest  
45 Laboratory (co-operator).
- 46
- 47 k. The term "**Raw Data**" means the initial value of analog or digital  
48 instrument outputs and/or manually recorded values obtained from  
49 measurement tools or personal observation. These values are

1 converted into reportable data (e.g., concentration, percent  
2 moisture) via automated procedures and/or manual calculations.

- 3  
4 l. The term "**Reasonable Times**" means normal business hours, hours  
5 during which production, treatment, storage, construction,  
6 disposal or discharge occurs or times when the Department suspects  
7 a violation requiring immediate inspection  
8
- 9 m. The term "**Significant Discrepancy**" in regard to a manifest or  
10 shipping paper means a discrepancy between the quantity or type of  
11 dangerous waste designated on the manifest or shipping paper and  
12 the quantity or type of dangerous waste a TSD unit actually  
13 receives. A significant discrepancy in quantity is a variation  
14 greater than ten (10) percent in weight for bulk quantities (e.g.,  
15 tanker trucks, railroad tank cars, etc.), or any variation in  
16 piece count for nonbulk quantities (i.e., any missing container or  
17 package would be a significant discrepancy). A significant  
18 discrepancy in type is an obvious physical or chemical difference  
19 which can be discovered by inspection or waste analysis (e.g.,  
20 waste solvent substituted for waste acid).  
21
- 22 n. The term "**Unit**" (or "**TSD unit**"), as used in Parts I through V of  
23 this Permit, means the contiguous area of land on or in which  
24 dangerous waste is placed, or the largest area in which there is a  
25 significant likelihood of mixing dangerous waste constituents in  
26 the same area. A TSD unit, for purposes of this Permit, is a  
27 subgroup of the Facility which has been identified in a Hanford  
28 Facility Dangerous Waste Part A Permit Application Form 3.

ACRONYMS

1		
2		
3		
4	AGENCY	U. S. Environmental Protection Agency, Region X
5	APP	Used to Denote Appendix Page Numbers
6		
7	BHE	Bechtel Hanford, Inc.
8		
9	CERCLA	Comprehensive Environmental Response Compensation and
10		Liability Act of 1980 (as Amended by the Superfund
11		Reauthorization Act of 1986)
12	CFR	Code of Federal Regulations
13	CIP	Construction Inspection Plan
14	CLP	Contract Laboratory Program
15		
16	Department	Washington State Department of Ecology
17	DOE-RL	U. S. Department of Energy, Richland Operations Office
18		
19	EC	Emergency Coordinator
20	Ecology	Washington State Department of Ecology
21	ECN	Engineering Change Notice
22	EPA	U.S. Environmental Protection Agency
23		
24	FFACO	Hanford Federal Facility Agreement and Consent Order
25		
26	HSWA	Hazardous and Solid Waste Amendments of 1984
27	HWMA	Hazardous Waste Management Act
28		
29	MTCA	Model Toxics Control Act
30		
31	NCR	Nonconformance Report
32	616 NRDWSF	616 Nonradioactive Dangerous Waste Storage Facility
33		
34	OSWER	Office of Solid Waste and Emergency Response
35		
36	PNL	Pacific Northwest Laboratory
37		
38	QA	Quality Assurance
39	QAPP	Quality Assurance Project Plan
40	QC	Quality Control
41		
42	RCRA	Resource Conservation and Recovery Act of 1976
43	RCW	Revised Code of Washington
44		
45	SAP	Sampling and Analysis Plan
46	SARA	Superfund Amendments and Reauthorization Act of 1986
47	SOP	Standard Operating Procedure
48	SWMU	Solid Waste Management Unit
49		

Permit Number: WA7890008967  
Revision Number 1  
Expiration Date: September 27, 2004  
Page 13 of 90

1	TCLP	Toxicity Characteristic Leaching Procedure
2	TSD	Treatment, Storage, and/or Disposal
3		
4	USDOE	U.S. Department of Energy
5		
6	WAC	Washington Administrative Code
7	WAP	Waste Analysis Plan
8	Westinghouse	Westinghouse Hanford Company
9	Hanford	
10		
11		
12		

PART I - STANDARD CONDITIONS

I.A. EFFECT OF PERMIT

I.A.1.a. 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 FFACO). 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 FFACO) 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 shall maintain interim status until their TSD unit is incorporated into Part I.B. of this Permit or until interim status is terminated under WAC 173-303-805(8). Interim status units shall be incorporated into this Permit through the Permit modification process.

I.A.1.b. The Conditions of this Permit shall be applied to the Facility as defined by the Permit Applicability Matrix (Attachment 3).

I.A.2. USDCE is responsible for activities which include, but are not limited to, the overall management and operation of the Facility.

Westinghouse Hanford 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.

PNL 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.

BHI 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.

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49

1 I.A.3. **Coordination With The FFACO**

2  
3 Each TSD unit shall have an application for a final status  
4 permit or closure/postclosure plan submitted to the  
5 Department in accordance with the schedules identified in  
6 the FFACO (Milestone M-20-000). After completion of the  
7 permit application or closure plan review, a final permit  
8 decision will be made pursuant to WAC 173-303-840. Specific  
9 conditions for each TSD unit shall be incorporated into this  
10 Permit in accordance with the Class 3 permit modification  
11 procedure identified in Condition I.C.3.  
12

13 I.E. **PERSONAL AND PROPERTY RIGHTS**

14  
15 This Permit does not convey property rights of any sort or  
16 any exclusive privilege; nor does it authorize any injury to  
17 persons or property, or any invasion of other private  
18 rights, or any violation of Federal, State, or local laws or  
19 regulations.  
20

21 I.C. **PERMIT ACTIONS**

22  
23 I.C.1. **Modification, Revocation, Reissuance, or Termination**

24  
25 This Permit may be modified, revoked and reissued, or  
26 terminated by the Department for cause as specified in WAC  
27 173-303-830(3), (4), and (5).  
28

29 I.C.2. **Filing of a Request**

30  
31 The filing of a request for a permit modification, or  
32 revocation and reissuance, or termination, or a notification  
33 of planned changes or anticipated noncompliance on the part  
34 of the Permittees shall not stay the applicability or  
35 enforceability of any Condition except as provided in WAC  
36 173-303-830(3), (4), and (5).  
37

38 I.C.3. **Modifications**

39  
40 Except as provided otherwise by specific language in this  
41 Permit, the Permit modification procedures of WAC 173-303-  
42 830 shall apply to modifications or changes in design or  
43 operation of the Facility or any modification or change in  
44 dangerous waste management practices covered by this Permit.  
45 As an exception, the Permittees shall provide notifications  
46 to the Department required by WAC 173-303-830(4)(a)(i)(A) on  
47 a quarterly basis. Each quarterly notification shall be  
48 submitted within ten days of the end of the quarter and  
49 provide the required information for all such modifications

1 put into effect during that reporting period. Quarterly  
2 reporting periods shall be based upon the state Fiscal Year.  
3

4 I.D. SEVERABILITY

5  
6 I.D.1. **Effect of Invalidation**

7  
8 The provisions of this Permit are severable, and if any  
9 provision of this Permit, or the application of any  
10 provision of this Permit to any circumstance is contested  
11 and/or held invalid, the application of such provision to  
12 other circumstances and the remainder of this Permit shall  
13 not be affected thereby. Invalidation of any State  
14 statutory or regulatory provision which forms the basis for  
15 any Condition of this Permit does not affect the validity of  
16 any other State statutory or regulatory basis for said  
17 Condition.  
18

19 I.D.2. Final Resolution

20  
21 In the event that a Condition of this Permit is stayed for  
22 any reason, the Permittees shall continue to comply with the  
23 related applicable and relevant interim status standards in  
24 WAC 173-303-400 until final resolution of the stayed  
25 Condition, unless the Department determines compliance with  
26 the related applicable and relevant interim status standards  
27 would be technologically incompatible with compliance with  
28 other Conditions of this Permit which have not been stayed,  
29 or unless the FFACO authorizes an alternative action, in  
30 which case the Permittees shall comply with the FFACO.  
31

32 I.E. DUTIES AND REQUIREMENTS4

33  
34 I.E.1. **Duty to Comply**

35  
36 The Permittees shall comply with all Conditions of this  
37 Permit, except to the extent and for the duration such  
38 noncompliance is authorized by an emergency permit issued  
39 under WAC 173-303-804. Any Permit noncompliance other than  
40 noncompliance authorized by an emergency permit constitutes  
41 a violation of Chapter 70.105 RCW, as amended, and is  
42 grounds for enforcement action, Permit termination,  
43 modification or revocation and reissuance of the Permit,  
44 and/or denial of a Permit renewal application.  
45  
46  
47  
48  
49

1 I.E.2. **Compliance Not Constituting Defense**

2  
3 Compliance with the terms of this Permit does not constitute  
4 a defense to any order issued or any action brought under  
5 Section 3007, 3008, 3013, or 7003 of RCRA (42 U.S.C.  
6 Sections 6927, 6928, 6934, and 6973), Section 104, 106(a) or  
7 107 of the Comprehensive Environmental Response,  
8 Compensation, and Liability Act of 1980 (CERCLA) [42 U.S.C.  
9 Sections 9604, 9606(a), and 9607], as amended by the  
10 Superfund Amendments and Reauthorization Act of 1986 (42  
11 U.S.C. 9601 et seq.), or any other federal, state or local  
12 law governing protection of public health or the  
13 environment, provided, however, that compliance with this  
14 Permit during its term constitutes compliance at those areas  
15 subject to this Permit for the purpose of enforcement with  
16 WAC 173-303-140, WAC 173-303-180, WAC 173-303-280 through -  
17 395, WAC 173-303-600 through -680, WAC 173-303-810, and WAC  
18 173-303-830, except for Permit modifications and those  
19 requirements set forth in the rules that become  
20 effective by statute or that are promulgated under 40 CFR  
21 Part 268 restricting the placement of dangerous waste in or  
22 on the land.

23  
24 I.E.3. **Duty to Reapply**

25  
26 If the Permittees wish to continue an activity regulated by  
27 this Permit after the expiration date of this Permit, the  
28 Permittees must apply for and obtain a new Permit, in  
29 accordance with WAC 173-303-806(6).

30  
31 I.E.4. **Permit Expiration and Continuation**

32  
33 This Permit, and all Conditions herein, will remain in  
34 effect beyond the Permit's expiration date until the  
35 effective date of the new permit if the Permittees have  
36 submitted a timely, complete application for renewal per WAC  
37 173-303-806 and, through no fault of the Permittees, the  
38 Department has not made a final Permit determination as set  
39 forth in WAC 173-303-840.

40  
41 I.E.5. **Need to Halt or Reduce Activity Not a Defense**

42  
43 It shall not be a defense in the case of an enforcement  
44 action that it would have been necessary to halt or reduce  
45 the permitted activity in order to maintain compliance with  
46 the Conditions of this Permit.

1 I.E.6. **Duty to Mitigate**

2  
3 In the event of noncompliance with the Permit, the  
4 Permittees shall take all reasonable steps to minimize  
5 releases to the environment and shall carry out such  
6 measures as are reasonable to minimize or correct adverse  
7 impacts on human health and the environment.  
8

9 I.E.7. **Proper Operation and Maintenance**

10  
11 The Permittees shall at all times properly operate and  
12 maintain all facilities and systems of treatment and control  
13 which are installed or used by the Permittees to achieve  
14 compliance with the Conditions of this Permit. Proper  
15 operation and maintenance includes effective performance,  
16 adequate funding, adequate operator staffing and training,  
17 and adequate laboratory and process controls including  
18 appropriate quality assurance/quality control procedures.  
19 This provision regards the operation or backup of auxiliary  
20 facilities or similar systems only when necessary to achieve  
21 compliance with the Conditions of the Permit.  
22

23 I.E.8. **Duty to Provide Information**

24  
25 The Permittees shall furnish to the Department, within a  
26 reasonable time, any relevant information which the  
27 Department may request to determine whether cause exists for  
28 modifying, revoking and reissuing or terminating this  
29 Permit, or to determine compliance with this Permit. The  
30 Permittees shall also furnish to the Department, upon  
31 request, copies of records required to be kept by this  
32 Permit.  
33

34 I.E.9. **Inspection and Entry**

35  
36 The Permittees shall allow the Department, or authorized  
37 representatives, upon the presentation of Department  
38 credentials, to:  
39

40 I.E.9.a. During operating hours and at all other reasonable times,  
41 enter and inspect the Facility or any unit or area within  
42 the Facility where regulated activities are located or  
43 conducted, or where records must be kept under the  
44 Conditions of this Permit;  
45

46 I.E.9.b. Have access to, and copy, at reasonable times, any records  
47 that must be kept under the Conditions of this Permit;  
48

- 1 I.E.9.c. Inspect at reasonable times any portion of the Facility,  
2 equipment (including monitoring and control equipment),  
3 practices, or operations regulated or required under this  
4 Permit; and,  
5
- 6 I.E.9.d. Sample or monitor, at reasonable times, for the purposes of  
7 assuring Permit compliance or as otherwise authorized by  
8 State law, as amended, for substances or parameters at any  
9 location.  
10
- 11 I.E.10. **Monitoring and Records**
- 12
- 13 I.E.10.a. Samples and measurements taken by the Permittees for the  
14 purpose of monitoring required by this Permit shall be  
15 representative of the monitored activity. Sampling methods  
16 shall be in accordance with WAC 173-303-110 or 40 CFR 261,  
17 unless otherwise specified in this Permit or agreed to in  
18 writing by the Department. Analytical methods shall be as  
19 specified in the most recently published test procedure of  
20 the document titled in WAC 173-303-110(2)(a) through (d)  
21 unless otherwise specified in this Permit or agreed to in  
22 writing by the Department.  
23
- 24 I.E.10.b. The Permittees shall retain at the TSD unit(s), or other  
25 location approved by the Department, as specified in Parts  
26 III or V of this Permit, records of monitoring information  
27 required for compliance with this Permit, including  
28 calibration and maintenance records and all original strip  
29 chart recordings for continuous monitoring instrumentation,  
30 copies of reports and records required by this Permit, and  
31 records of data used to complete the application for this  
32 Permit for a period of at least ten (10) years from the date  
33 of the sample, measurement, report, or application, unless  
34 otherwise required for certain information by other  
35 Conditions of this Permit. This information may be retained  
36 on electronic media.  
37
- 38 I.E.10.c. The Permittees shall retain at the Facility, or other  
39 approved location, records of all monitoring and maintenance  
40 records, copies of all reports and records required by this  
41 Permit, and records of all data used to complete the  
42 application for this Permit which are not associated with a  
43 particular TSD unit for a period of at least ten (10) years  
44 from the date of certification of completion of postclosure  
45 care or corrective action for the Facility, whichever is  
46 later. This information may be retained on electronic  
47 media.  
48

1 I.E.10.d. The record retention period may be extended by request of  
2 the Department at any time by notification, in writing, to  
3 the Permittees and is automatically extended during the  
4 course of any unresolved enforcement action regarding this  
5 Facility to ten (10) years beyond the conclusion of the  
6 enforcement action.  
7

8 I.E.10.e. Records of monitoring information shall include:

- 9  
10 i. The date, exact place and time of sampling or  
11 measurements;  
12  
13 ii. The individual who performed the sampling or  
14 measurements and their affiliation;  
15  
16 iii. The dates the analyses were performed;  
17  
18 iv. The individual(s) who performed the analyses and their  
19 affiliation;  
20  
21 v. The analytical techniques or methods used; and,  
22  
23 vi. The results of such analyses.  
24

25 I.E.11. **Reporting Planned Changes**

26  
27 The Permittees shall give notice to the Department as soon  
28 as possible of any planned physical alterations or additions  
29 to the Facility subject to this Permit. Such notice does  
30 not authorize any noncompliance with or modification of this  
31 Permit.  
32

33 I.E.12. **Certification of Construction or Modification**

34  
35 The Permittees may not commence treatment, storage, or  
36 disposal of dangerous wastes in a new or modified portion of  
37 TSD units subject to this Permit until:  
38

- 39 i. The Permittees have submitted to the Department, by  
40 certified mail, overnight express mail, or hand  
41 delivery, a letter signed by the Permittees and a  
42 registered professional engineer stating that the TSD  
43 unit has been constructed or modified in compliance  
44 with the Conditions of this Permit; and,  
45  
46 ii. The Department has inspected the modified or newly  
47 constructed TSD unit, and finds that it is in  
48 compliance with the Conditions of this Permit; or  
49

1           iii. Within 15 days of the date of receipt of the  
2           Permittees' letter, the Permittees have not received  
3           notice from the Department of its intent to inspect,  
4           prior inspection is waived, and the Permittees may  
5           commence treatment, storage, and disposal of dangerous  
6           waste.

7  
8           I.E.13.           **Anticipated Noncompliance**

9  
10           The Permittees shall give at least 30 days advance notice to  
11           the Department of any planned changes in the Facility  
12           subject to this Permit or planned activity which might  
13           result in noncompliance with Permit requirements.

14  
15           If 30 days advance notice is not possible, then the  
16           Permittees shall give notice immediately after the  
17           Permittees become aware of the anticipated noncompliance.  
18           Such notice does not authorize any noncompliance with or  
19           modification of this Permit.

20  
21           I.E.14.           **Transfer of Permits**

22  
23           This Permit may be transferred to a new owner only if it is  
24           modified or revoked and reissued pursuant to WAC 173-303-  
25           830(3)(b). The Permit may be transferred to a new co-  
26           operator in accordance with the provisions of WAC 173-303-  
27           830(2). Before transferring ownership or operation of the  
28           Facility during its operating life, the Permittees shall  
29           notify the new owner or operator in writing of the  
30           requirements of WAC 173-303-600 and -806 and this Permit.

31  
32           I.E.15.           **Immediate Reporting**

33  
34           I.E.15.a           The Permittees shall verbally report to the Department any  
35           release of dangerous waste or hazardous substances, or any  
36           noncompliance with the Permit which may endanger human  
37           health or the environment. Any such information shall be  
38           reported immediately after the Permittees become aware of  
39           the circumstances.

40  
41           I.E.15.b           The immediate verbal report shall contain all the  
42           information needed to determine the nature and extent of any  
43           threat to human health and the environment, including the  
44           following:

45  
46           i.           Name, address, and telephone number of the Permittee  
47           responsible for the release or noncompliant activity;  
48

- ii. Name, location, and telephone number of the unit at which the release occurred;
- iii. Date, time and type of incident;
- iv. Name and quantity of material(s) involved;
- v. The extent of injuries, if any;
- vi. An assessment of actual or potential hazard to the environment and human health, where this is applicable
- vii. Estimated quantity of released material that resulted from the incident; and,
- viii. Actions which have been undertaken to mitigate the occurrence

I.E.15.c. The permittees shall report, in accordance with 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 shall 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 the Department 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, shall be controlled and mitigated, if necessary, as required by WAC 173-303-145(3).

1 I.E.16. **Written Reporting**

2  
3 Within 15 days after the time the Permittees become aware of  
4 the circumstances of any noncompliance with this Permit  
5 which may endanger human health or the environment, the  
6 Permittees shall provide to the Department a written report.  
7 The written report shall contain a description of the  
8 noncompliance and its cause (including the information  
9 provided in the verbal notification); the period of  
10 noncompliance including exact dates and times; the  
11 anticipated time noncompliance is expected to continue if  
12 the noncompliance has not been corrected; corrective  
13 measures being undertaken to mitigate the situation, and  
14 steps taken or planned to reduce, eliminate, and prevent  
15 reoccurrence of the noncompliance.

16  
17 I.E.17. **Manifest Discrepancy Report**

18  
19 For hazardous waste received from outside the Facility,  
20 whenever a significant discrepancy in a manifest is  
21 discovered, the Permittees shall attempt to reconcile the  
22 discrepancy. If not reconciled within 15 days of discovery,  
23 the Permittees shall submit a letter report in accordance  
24 with WAC 173-303-370(4), including a copy of the applicable  
25 manifest or shipping paper, to the Department.

26  
27 I.E.17.b.

28 For dangerous waste which is being transported within the  
29 Facility (i.e., shipment of on-site generated dangerous  
30 waste), whenever a significant discrepancy in the shipping  
31 papers (see Condition II.Q.1.) is discovered, the Permittees  
32 shall attempt to reconcile the discrepancy. If not  
33 reconciled within 15 days of discovery, the Permittees shall  
34 note the discrepancy in the receiving unit's operating  
35 record

36 I.E.18. **Unmanifested Waste Report**

37  
38 The Permittees shall follow the provisions of WAC 173-303-  
39 370 for the receipt of any dangerous waste shipment from  
40 off-site. The Permittees shall also submit a report in  
41 accordance with WAC 173-303-390(1) to the Department within  
42 15 days of receipt of any unmanifested dangerous waste  
43 shipment received from off-site sources.  
44  
45  
46  
47  
48  
49

1 I.E.19. **Other Noncompliance**

2  
3 The Permittees shall report to the Department all instances  
4 of noncompliance not otherwise required to be reported  
5 elsewhere in this Permit at the time the Annual Dangerous  
6 Waste Report is submitted.  
7

8 I.E.20. **Other Information**

9  
10 Whenever the Permittees become aware that they have failed  
11 to submit any relevant facts in a permit application,  
12 closure plan, or postclosure plan, or submitted incorrect  
13 information in a permit application, closure plan, or  
14 postclosure plan or in any report to the Department, the  
15 Permittees shall promptly submit such facts or corrected  
16 information.  
17

18 I.E.21. **Reports, Notifications and Submissions**

19  
20 All written reports, notifications or other submissions  
21 which are required by this Permit to be sent or given to the  
22 Director or Department should be sent certified mail,  
23 overnight express mail or hand delivered to:

24  
25 Nuclear Waste Program  
26 Regulatory and Technical Support Unit  
27 Department of Ecology  
28 200 Desmond Drive  
29 Lacey, Washington 98503  
30 Telephone: (206) 407-7132,  
31

32 and

33  
34 Department of Ecology  
35 200 Area Section  
36 1315 West Fourth Avenue  
37 Kennewick, Washington 99336  
38 Telephone: (509) 735-7581  
39

40 Telephonic and oral reports/notifications need only be  
41 provided to the Department's Kennewick Office.  
42

43 These are the current phone numbers and addresses and may be  
44 subject to change. The Department shall give the Permittees  
45 written notice of a change in address or telephone number.  
46 It is the responsibility of the Permittees to ensure any  
47 required reports, notifications or other submissions are  
48 transmitted to the addressee listed in this Condition.  
49 However, the Permittees shall not be responsible for

1 ensuring verbal and written correspondence reaches a new  
2 address or telephone number until after their receipt of the  
3 Department's written notification.

4  
5 I.E.22. **Annual Report**

6  
7 The Permittees shall comply with the annual reporting  
8 requirements of WAC 173-303-890(2)(a) through (e) and (g).

9  
10 I.F. SIGNATURE REQUIREMENT

11 All applications, reports, or information submitted to the  
12 Department which require certification shall be signed and  
13 certified in accordance with WAC 173-303-810(12) and (13).  
14 All other reports required by this Permit and other  
15 information requested by the Department shall be signed in  
16 accordance with WAC 173-303-810(12).

17  
18 I.G. CONFIDENTIAL INFORMATION

19  
20  
21 The Permittees may claim confidential any information  
22 required to be submitted by this Permit, at the time of  
23 submission, in accordance with WAC 173-303-810(15).

24  
25 I.H. DOCUMENTS TO BE MAINTAINED AT FACILITY SITE

26  
27 The Permittees shall maintain at the Facility, or some other  
28 location approved by the Department, the following documents  
29 and amendments, revisions, and modifications to these  
30 documents:

- 31  
32 1. This Permit and all attachments;
- 33  
34 2. All dangerous waste Part B permit applications,  
35 postclosure permit applications and closure plans;  
36 and,
- 37  
38 3. The Facility Operating Record.

39  
40 These documents shall be maintained for ten (10) years after  
41 postclosure care or corrective action for the Facility,  
42 whichever is later, has been completed and certified as  
43 complete.  
44

PART II - GENERAL FACILITY CONDITIONS

II.A. FACILITY CONTINGENCY PLAN

II.A.1. The Permittees shall immediately carry out the provisions of the Contingency Plan as provided in Attachment 4, pursuant to WAC 173-303-360(1), whenever there is a release of dangerous waste or dangerous waste constituents, or other emergency circumstance, either of which threatens human health or the environment.

II.A.2. The Permittees shall comply with the requirements of WAC 173-303-350(4), as provided in the Hanford Facility Contingency Plan (Attachment 4). The Hanford Facility Contingency Plan contains reference to unit-specific contingency plans included in Part III of this Permit.

II.A.3. The Permittees shall review and amend, if necessary, the Hanford Facility Contingency 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 plan shall be amended within a period of time agreed upon by the Department.

II.A.4. The Permittees shall 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 Occurrence Notification Center, phone number (509) 376-2900.

II.B. PREPAREDNESS AND PREVENTION

II.B.1. The Permittees shall equip the Facility with the equipment specified in the Hanford Facility Contingency Plan (Attachment 4) pursuant to WAC 173-303-340(1). Unit-specific preparedness and prevention provisions are included in Parts III and V of this Permit.

II.B.2. The Permittees shall test and maintain the equipment specified in the previous condition as necessary to assure proper operation in the event of emergency.

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

- 1 II.B.4. The Permittees shall comply with WAC 173-303-340(4) and WAC  
2 173-303-355(1) pertaining to arrangements with local  
3 authorities.  
4
- 5 II.C. PERSONNEL TRAINING  
6
- 7 II.C.1. The Permittees shall conduct personnel training as required  
8 by WAC 173-303-330. The Permittees shall maintain documents  
9 in accordance with WAC 173-303-330(2) and (3). Training  
10 records may be maintained in the Hanford Facility operating  
11 record or on electronic data storage.  
12
- 13 II.C.2. All Hanford Facility personnel shall receive general  
14 Facility training within six months of hire. This training  
15 shall provide personnel with orientation of dangerous waste  
16 management activities being conducted on the Hanford  
17 Facility. This training shall include:  
18
- 19 II.C.2.a. Description of emergency systems and appropriate personnel  
20 response,  
21
- 22 II.C.2.b. Identification of contacts for information regarding  
23 dangerous waste management activities,  
24
- 25 II.C.2.c. Introduction to waste minimization concepts,  
26
- 27 II.C.2.d. Identification of contact(s) for emergencies involving  
28 dangerous waste, and  
29
- 30 II.C.2.e. Familiarization with the Hanford Facility Contingency Plan.  
31
- 32 II.C.3. Description of training plans for personnel assigned to TSD  
33 units subject to this Permit are delineated in the unit-  
34 specific chapters in Parts III or V of this Permit.  
35
- 36 II.C.4. The Permittees shall provide the necessary training to non-  
37 Facility personnel (i.e., visitors, sub-contractors) as  
38 appropriate for the locations such personnel will be at and  
39 the activities that will be undertaken. At a minimum, this  
40 training shall describe dangerous waste management hazards  
41 at the Facility.  
42
- 43 II.D. WASTE ANALYSIS  
44
- 45 II.D.1. All waste analyses required by this Permit shall be  
46 conducted in accordance with a written waste analysis plan  
47 (WAP) or sampling and analysis plan (SAP). Operating TSD  
48 units shall have a WAP, which shall be approved through  
49 incorporation of the TSD unit into Part III of this Permit.

1 Closing TSD units shall have a SAP and, if necessary, a WAP  
2 which shall be approved through incorporation of the TSD  
3 unit into Part V of this Permit.  
4

5 II.D.2. Until a WAP is implemented in accordance with Condition  
6 II.D.1., any unit(s) identified in Parts III or V of this  
7 Permit without a unit-specific waste analysis plan approved  
8 by the Department shall not treat, store, or dispose of  
9 dangerous waste, unless specified otherwise by the  
10 Department in writing.  
11

12 II.D.3. Each TSD unit WAP shall include:  
13

- 14 i. The parameters for which each dangerous waste will be  
15 analyzed, and the rationale for selecting these  
16 parameters;
- 17  
18 ii. The methods of obtaining or testing for these  
19 parameters;
- 20  
21 iii. The methods for obtaining representative samples or  
22 wastes for analysis (representative sampling methods  
23 are discussed in WAC 173-303-110(2));
- 24  
25 iv. The frequency with which analysis of a waste will be  
26 reviewed or repeated to ensure that the analysis is  
27 accurate and current;
- 28  
29 v. The waste analyses which generators have agreed to  
30 supply;
- 31  
32 vi. Where applicable the methods for meeting the  
33 additional waste analysis requirements for specific  
34 waste management methods as specified in WAC 173-303-  
35 630 through 173-303-670; and,
- 36  
37 vii. For off-site facilities, the procedures for confirming  
38 that each dangerous waste received matches the  
39 identity of the waste specified on the accompanying  
40 manifest or shipping paper. This includes at least:  
41  
42 (1) The procedure for identifying each waste  
43 movement at the Facility; and,  
44  
45 (2) The method for obtaining a representative sample  
46 of the waste to be identified, if the  
47 identification method includes sampling.  
48

1 II.D.4. Should waste analysis be required by this Permit at a  
2 location on the Facility other than at a TSD unit, a SAP  
3 shall be maintained by the Permittees and made available  
4 upon request from the Department. Any SAP required by this  
5 Permit not associated with a particular TSD unit shall  
6 include the elements of Conditions II.D.3.(i) through  
7 II.D.3.(iv)  
8

9 II.E. QUALITY ASSURANCE/QUALITY CONTROL

10  
11 II.E.1. All WAPs and SAPs required by this Permit shall include a  
12 quality assurance/quality control (QA/QC) plan or equivalent  
13 to document all monitoring procedures so as to ensure that  
14 all information, data, and resulting decisions are  
15 technically sound, statistically valid, and properly  
16 documented. Each QA/QC plan shall include, or contain a  
17 reference to another document which will be used and  
18 includes, the elements defined in Conditions II.E.2. and  
19 ~~II.E.3.~~ The QA/QC plan may be part of a SAP, WAP, or  
20 WQAP.  
21

22 II.E.2. Each QA/QC plan shall contain a Data Quality Assurance Plan  
23 which includes the following:  
24

25 II.E.2.a. A Data Collection Strategy section including, but not be  
26 limited to, the following:  
27

- 28 i. A description of the intended uses for the data, and  
29 the necessary level of precision and accuracy for  
30 these intended uses; and,  
31
- 32 ii. A description of methods and procedures to be used to  
33 assess the precision, accuracy and completeness of  
34 the measurement data;  
35

36 II.E.2.b. A Sampling section which shall include or describe and  
37 reference or cite:  
38

- 39 i. Sampling methods including the identification of  
40 sampling equipment, a description of purging  
41 procedures, and a description of decontamination  
42 procedures to be used;  
43
- 44 ii. Criteria for selecting appropriate sampling locations,  
45 depths, etc., or identification and justification of  
46 sample collection points and frequencies;  
47
- 48 iii. Criteria for providing a statistically sufficient  
49 number of samples as defined in EPA guidance or

1 criteria for determining a technically sufficient  
2 number of measurements to meet the needs of the  
3 project as determined through the DQO planning  
4 process;

- 5
- 6 iv. Methods for, or specification of, measuring all  
7 necessary ancillary data;
- 8
- 9 v. Criteria for, or specification of, determining  
10 conditions under which sampling should be conducted;
- 11
- 12 vi. Criteria for establishing, or specification of, which  
13 parameters are to be measured at each sample  
14 collection point and the frequency that each parameter  
15 is to be measured;
- 16
- 17 vii. Criteria for, or specification of, identifying the  
18 type of sampling (e.g., composites vs. grabs) and  
19 number of samples to be collected;
- 20
- 21 viii. Criteria for, or specification of, measures to be  
22 taken to prevent contamination of the sampling  
23 equipment and cross contamination between sampling  
24 points;
- 25
- 26 ix. Methods and documentation of field sampling operations  
27 and procedure descriptions, as appropriate, including:
- 28
- 29 1) Documentation of procedures for preparation of  
30 reagents or supplies which become an integral  
31 part of the sample (e.g., filters and absorbing  
32 reagents);
- 33
- 34 (2) Procedure descriptions and forms for recording  
35 the exact location, sampling conditions,  
36 sampling equipment, and visual condition of  
37 samples;
- 38
- 39 (3) Documentation of specific sample preservation  
40 method;
- 41
- 42 (4) Calibration of field devices;
- 43
- 44 (5) Collection of replicate samples;
- 45
- 46 (6) Submission of field-biased blanks, where  
47 appropriate;
- 48
- 49 (7) Potential interferences present at the facility;

1 (8) Field equipment listing and sample containers;

2  
3 (9) Sampling order; and,

4  
5 (10) Descriptions of decontamination procedures.

6  
7 x. Selection of appropriate sample containers, as  
8 applicable

9  
10 xi. Sample preservation methods, as applicable; and,

11  
12 xii. Chain-of-custody procedure descriptions as applicable,  
13 including

14  
15 (1) Standardized field tracking reporting forms to  
16 establish sample custody in the field prior to  
17 and during shipment; and

18  
19 (2) Pre-prepared sample labels containing all  
20 information necessary for effective sample  
21 tracking, except where such information is  
22 generated in the field in which case blank  
23 spaces shall be provided on the pre-prepared  
24 sampling label.

25  
26 II.E.2.c. Where applicable, a Field Measurements section which shall  
27 address:

28  
29 i. Selecting appropriate field measurement locations,  
30 depths, etc.;

31  
32 ii. Providing a statistically sufficient number of field  
33 measurements as defined in EPA guidance or criteria  
34 for determining a technically sufficient number of  
35 measurements to meet the needs of the project as  
36 determined through the DQO process;

37  
38 iii. Measuring all necessary ancillary data;

39  
40 iv. Determining conditions under which field measurements  
41 should be conducted;

42  
43 v. Determining which media are to be addressed by  
44 appropriate field measurements (e.g., ground water,  
45 air, soil, sediment, etc.);

46  
47 vi. Determining which parameters are to be measured and  
48 where;

49

- vii. Selecting the frequency of field measurement and length of field measurements period; and,
- viii. Documenting field measurement operations and procedures including
  - 1) Descriptions of procedures and forms for recording raw data and the specific location, time and sampling conditions;
  - 2) Calibration of field devices;
  - 3) Collection of replicate measurements;
  - 4) Submission of field-biased blanks, where appropriate;
  - 5) Potential interferences present at the facility;
  - 6) Field equipment listing; and
  - 7) Descriptions of decontamination procedures.

II.E.2.d.

Where applicable, a Sample Analysis section which shall specify the following:

- i. Chain-of-custody procedures, including:
  - (1) Certification that all samples obtained for analysis will be delivered to a responsible person at the recipient laboratory who is authorized to sign for incoming field samples, obtain documents of shipment, and verify the data entered onto the sample custody records;
  - (2) Provision for a laboratory sample custody log; and,
  - (3) Specification of chain-of-custody procedures for sample handling, storage, and dispersment for analysis.
- ii. Sample storage procedure descriptions and storage times;
- iii. Sample preparation methods;
- iv. Descriptions of analytical procedures, including:

- (1) Scope and application of the procedure;
- (2) Sample matrix;
- (3) Potential interferences;
- (4) Precision and accuracy of the methodology; and,
- (5) Method detection limits.

v. Descriptions of calibration procedures and frequency;

vi. Data reduction, validation, and reporting;

vii. Internal laboratory quality control checks, laboratory performance, and systems audits and frequency, including:

- (1) Method blanks;
- (2) Laboratory control sample(s);
- (3) Calibration check sample(s);
- (4) Replicate sample(s);
- (5) Matrix-spiked sample(s);
- (6) 'Blind' quality control;
- (7) Control charts;
- (8) Surrogate samples;
- (9) Zero and span gases; and,
- (10) Reagent quality control checks.

II.E.3.

Each QA/QC plan shall include a Data Management Plan or equivalent, to document and track data and results. This plan shall identify and establish data documentation materials and procedures, project or unit file requirements, and project-related progress reporting procedures and documents. The storage location for the raw data shall be identified. The plan shall also provide the format to be used to record and, for projects, present the validated and unvalidated data and conclusions. The Data Management Plan shall include the following as applicable:

- 1 II.E.3.a. A data record including the following:  
2  
3 i. Unique sample or field measurement code;  
4  
5 ii. Sampling or field measurement location including  
6 surveyed horizontal coordinates and elevation of the  
7 sample location, and sample or measurement type;  
8  
9 iii. Sampling or field measurement raw data;  
10  
11 iv. Laboratory analysis ID number;  
12  
13 v. Result of analysis (e.g., concentration);  
14  
15 vi. Elevations of reference points for all ground water  
16 level measurements, including water level elevation,  
17 top of casing elevation, and ground surface elevation;  
18 and,  
19  
20 vii. Magnetic computer records of all ground water, soil  
21 surface water, and sediment analytical data.  
22

- 23 II.E.3.b. Tabular displays as appropriate, illustrating:  
24  
25 i. Unsorted validated and unvalidated data;  
26  
27 ii. Results for each medium and each constituent  
28 monitored;  
29  
30 iii. Data reduction for statistical analysis;  
31  
32 iv. Sorting of data by potential stratification factors  
33 (e.g., location, soil layer, topography); and,  
34  
35 v. Summary data.  
36

- 37 II.E.3.c. Graphical displays (e.g., bar graphs, line graphs, area or  
38 plan maps, isopleth plots, cross-sectional plots or  
39 transects, three dimensional graphs, etc.), as appropriate,  
40 presenting the following:  
41  
42 i. Displays of sampling location and sampling grid;  
43  
44 ii. Identification of boundaries of sampling area and  
45 areas where more data are required;  
46  
47 iii. Displays of concentrations of contamination at each  
48 sampling location;  
49

- iv. Displays of geographical extent of contamination;
- v. Areal and vertical displays of contamination concentrations, concentration averages, and concentration maxima, including isoconcentration maps for contaminants found in environmental media at the Facility;
- vi. Illustrations of changes in concentration in relation to distance from the source, time, depth, or other parameters
- vii. Identification of features affecting intramedia transport and identification of potential receptors;
- viii. For each round of ground water level measurements, maps showing the distribution of head measurements in each aquifer; and,
- ix. For each well, provide a hydrograph that shows the distribution of water level measurements taken during the time interval of the investigation.

II.E.4. Unless otherwise agreed upon in writing by the Department, the Permittees shall provide notification of availability to the Department of all data obtained pursuant to this Permit within 30 days of receipt by the Permittees, or after completion of QA/QC activities, if applicable. If the Department agrees that data will be obtained on a routine basis for a particular unit, the Permittees shall only be required to provide notification of data availability within 30 days of first availability along with a statement as to expected frequency of future data. If routine data is not acquired at the stated expected frequency, the Permittees shall notify the department within 30 days with an explanation and revision, if applicable. This notification requirement shall also apply to any other information obtained from activities conducted, or data obtained, that may influence activities pursuant to this Permit.

II.E.5. The level of QA/QC for the collection, preservation, transportation, and analysis of each sample which is required for implementation of this Permit may be based upon Department approved data quality objectives for the sample. These data quality objectives shall be approved by the Department, in writing, or through incorporation of unit plans and permits into Parts III or V of this Permit.

1 II.F. GROUNDWATER AND VADOSE ZONE MONITORING

2  
3 The Permittees shall comply with the groundwater monitoring  
4 requirements of WAC 173-303-645. This Condition shall apply  
5 only to those wells the Permittees use for the groundwater  
6 monitoring programs applicable to the TSD units incorporated  
7 into Parts III or V of this Permit. Where releases from TSD  
8 units subject to this Permit have been documented or  
9 confirmed by investigation, or where vadose zone monitoring  
10 is proposed for integration with groundwater monitoring, the  
11 Permittees shall evaluate the applicability of vadose zone  
12 monitoring. The Permittees shall consult with the  
13 Department regarding the implementation of these  
14 requirements. If agreed to by the Department, integration  
15 of groundwater and vadose zone monitoring for reasons other  
16 than this Permit may be accommodated by this Permit.  
17 Results from other investigation activities shall be used  
18 whenever possible to supplement and/or replace sampling  
19 required by this Permit.

20  
21 II.F.1. **Purgewater Management**

22  
23 Purgewater shall be handled in accordance with the  
24 requirements set forth in Attachment 5, *Purgewater*  
25 *Management Plan*.

26  
27 II.F.2. **Well Remediation and Abandonment**

28  
29 II.F.2.a. The Permittees shall inspect the integrity of active  
30 resource protection wells as defined by WAC 173-160-030  
31 subject to this Permit at least once every five (5) years.  
32 These inspections shall be recorded in the Operating Record.  
33 The Permittees shall prepare a plan and schedule within 120  
34 days after the effective date of this Permit, specifying the  
35 schedule and technical standards for this program. The  
36 Permittees shall provide a copy of this plan upon the  
37 request of the Department.

38  
39 II.F.2.b. The Permittees shall evaluate resource protection wells  
40 subject to this Permit according to Sections 4.1. through  
41 4.8.3. of the *Hanford Well Remediation and Decommissioning*  
42 *Plan* (Attachment 6) and the Policy on Remediation of  
43 Existing Wells and Acceptance Criteria for RCRA and CERCLA,  
44 June 1990 (Attachment 7) to determine if a well has a  
45 potential use as a qualified well. The Permittees shall  
46 abandon or remediate unusable wells according to the  
47 requirements of Chapter 18.104 RCW, Chapter 173-160 WAC, and  
48

Chapter 173-162 WAC to ensure that the integrity of wells subject to this Permit is maintained. The timeframe for this remediation will be specified in Parts III or V of this Permit.

II.F.2.c. The Department shall receive notice in writing at least 72 hours before the Permittees remediate (excluding maintenance activities) or abandon any well subject to this Permit.

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

II.F.3. **Well Construction**

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

II.G. **SITING CRITERIA**

The Permittees shall 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**

In addition to the recordkeeping and reporting requirements specified elsewhere in this Permit, the Permittees shall comply with the following:

II.H.1. **Cost Estimate for Facility Closure**

The Permittees shall submit an annual report updating projections of anticipated costs for closure and postclosure of TSD units incorporated into Parts III or V of this Permit. This report will be submitted annually, by October 31, to the Department and reflect cost updates as of September 30, of the past Fiscal Year.

II.H.2. **Cost Estimate for Postclosure Monitoring and Maintenance**

The Permittees shall submit an annual report updating projects of anticipated costs for postclosure monitoring and maintenance for TSD units incorporated into Parts III or V of this Permit. This report will be submitted annually, by October 31, to the Department and reflect cost updates as of September 30, of the past Fiscal Year.

1 II.H.3. The Permittees are exempt from the requirements of WAC 173-  
2 303-620.

3  
4 II.I. FACILITY OPERATING RECORD

5  
6 II.I.1. The Permittees shall maintain a written Facility Operating  
7 Record until ten (10) years after postclosure or corrective  
8 action is complete and certified for the Facility, whichever  
9 is later. Except as specifically provided otherwise in this  
10 Permit, the Permittees shall also record all information  
11 referenced in this Permit in the Facility Operating Record  
12 within seven (7) working days after the information becomes  
13 available. A TSD unit specific operating record shall be  
14 maintained for each TSD unit at a location identified in  
15 Parts III and V of this Permit. Each TSD unit-specific  
16 operating record shall be included by reference in the  
17 Facility Operating Record. Information required in each TSD  
18 unit-specific operating record is identified on a unit-by-  
19 unit basis in Part III or V of this Permit. The Facility  
20 Operating Record shall include, but not be limited to, the  
21 following information:

22  
23 II.I.1.a. A description of the system(s) currently utilized to  
24 identify and map solid waste management units and their  
25 locations. The description of the system(s) is required to  
26 include an identification of on-site access to the system's  
27 data, and an on-site contact name and telephone number. In  
28 addition to, or as part of, this system(s), the Permittees  
29 shall also maintain a list identifying active 90-day waste  
30 storage areas and dangerous waste satellite accumulation  
31 areas and their locations. The list shall identify the  
32 location, the predominant waste types managed at the area,  
33 and a date identifying when the list was compiled. Maps  
34 shall be provided by the Permittees upon request by the  
35 Department;

36  
37 II.I.1.b. Records and results of waste analyses required by WAC 173-  
38 303-300;

39  
40 II.I.1.c. An identification of the system(s) currently utilized to  
41 generate Occurrence Reports. The identification of the  
42 system(s) is required to include a description, an  
43 identification of an on-site location of hard-copy  
44 Occurrence Reports, an identification of on-site access to  
45 the system's data, and an on-site contact name and telephone  
46 number;

- 1 II.I.1.d. Copies of all unmanifested waste reports;
- 2
- 3 II.I.1.e. Hanford Facility Contingency Plan as well as summary reports
- 4 and details of all incidents that require implementing the
- 5 Contingency Plan as specified in WAC 173-303-360(2)(k);
- 6
- 7 II.I.1.f. An identification of the system(s) currently utilized and
- 8 being developed to record personnel training records and to
- 9 develop training plans. The identification of the system(s)
- 10 is required to include a description, an identification of
- 11 on-site access to the system's data, and an on-site contact
- 12 name and telephone number;
- 13
- 14 II.I.1.g. Preparedness and prevention arrangements made pursuant to
- 15 WAC 173-303-340(4) and documentation of refusal by state or
- 16 local authorities that have declined to enter into
- 17 agreements in accordance with WAC 173-303-340(5);
- 18
- 19 II.I.1.h. [Reserved]
- 20
- 21 II.I.1.i. An identification and description of the report containing
- 22 closure and postclosure cost estimates required by
- 23 Conditions II.H.1. and II.H.2. The identification shall
- 24 provide the on-site location and document number of the
- 25 report;
- 26
- 27 II.I.1.j. Documentation (e.g. waste profile sheets) of all dangerous
- 28 waste transported to or from any TSD unit subject to this
- 29 Permit. This documentation shall be maintained in the
- 30 receiving unit's operating record from the time the waste is
- 31 received;
- 32
- 33 II.I.1.k. An identification of the system(s) currently utilized to
- 34 cross-reference waste locations to specific manifest
- 35 document numbers. The identification of the system(s) is
- 36 required to include a thorough description, an
- 37 identification of an on-site location of a hard-copy data
- 38 report, an identification of on-site access to the system's
- 39 data, and an on-site contact name and telephone number;
- 40
- 41 II.I.1.l. [Reserved]
- 42
- 43 II.I.1.m. Annual Reports required by this Permit;
- 44
- 45 II.I.1.n. An identification of all systems currently utilized to
- 46 record monitoring information, including all calibration and
- 47 maintenance records, and all original strip chart recordings

1 for continuous monitoring instrumentation. The  
2 identification of systems shall include a description of the  
3 systems. The descriptions shall include a confirmation that  
4 the criteria of Condition I.E.10.e. is provided by the  
5 utilization of the system. The identification of the  
6 systems shall also include an identification of on-site  
7 access to the system's data, an on-site contact name and  
8 telephone number;

9  
10 II.I.1.c. [Reserved]

11  
12 II.I.1.p. Summaries of all records of groundwater corrective action  
13 required by WAC 173-303-645.

14  
15 II.I.1.q. An identification of the system(s) currently being utilized  
16 and being developed to evaluate compliance with the  
17 Conditions of this Permit and with Chapter 173-303 WAC. The  
18 identification of the system(s) shall include a description  
19 of the system(s), an identification of on-site access to the  
20 system's data, and an on-site contact name and telephone  
21 number. The description of the system(s) shall also include  
22 a definition of which portion(s) of the system(s) are  
23 accessible to the Department;

24  
25 II.I.1.r. All deed notifications required by this Permit (to be  
26 included by reference);

27  
28 II.I.1.s. All inspection reports required by this Permit; and,

29  
30 II.I.1.t. All other reports as required by this Permit, including ECNs  
31 and NCRs.

32  
33 II.I.2. The descriptions of systems and/or reports required in  
34 Conditions II.I.1.a., II.I.1.c., II.I.1.f., II.I.1.i.,  
35 II.I.1.k., II.I.1.n., and II.I.1.q., shall be placed in the  
36 Facility Operating Record within twelve months of the  
37 effective date of this Permit.

38  
39 II.J. FACILITY CLOSURE

40  
41 II.J.1. Final closure of the Hanford Facility will be achieved when  
42 closure activities for all TSD units have been completed, as  
43 specified in Parts III, IV, or V of this Permit. Completion  
44 of these activities shall be documented using either  
45 certifications of closure, in accordance with WAC 173-303-  
46 610(6), or certifications of completion of postclosure care,  
47 in accordance with WAC 173-303-610(11).  
48

- 1 II.J.2. The Permittees shall close all TSD units as specified in  
2 Parts III or V of this Permit.  
3
- 4 II.J.3. The Permittees shall submit a written notification of or  
5 request for a permit modification in accordance with the  
6 provisions of WAC 173-303-610(3)(b) whenever there is a  
7 change in operating plans, facility design, or the approved  
8 closure plan. The written notification or request must  
9 include a copy of the amended closure plan for review or  
10 approval by the Department.  
11
- 12 II.J.4. The Permittees shall close the Facility in a manner that:  
13
- 14 II.J.4.a Minimizes the need for further maintenance;  
15
- 16 II.J.4.b. Controls, minimizes or eliminates to the extent necessary to  
17 protect human health and the environment, postclosure escape  
18 of dangerous waste, dangerous constituents, leachate,  
19 contaminated runoff, or dangerous waste decomposition  
20 products to the ground, surface water, ground water, or the  
21 atmosphere; and,  
22
- 23 II.J.4.c. Returns the land to the appearance and use of surrounding  
24 land areas to the degree possible given the nature of the  
25 previous dangerous waste activity.  
26
- 27 II.J.4.d. Meets the requirements of WAC 173-303-610(2)(b).  
28
- 29 II.K. SOIL/GROUNDWATER CLOSURE PERFORMANCE STANDARDS  
30
- 31 II.K.1. For purposes of Condition II.K., the term "clean closure"  
32 shall mean the status of a TSD unit at the Facility which  
33 has been closed to the cleanup levels prescribed by WAC 173-  
34 303-610(2)(b) provided certification of such closure has  
35 been accepted by Ecology.  
36
- 37 II.K.2. The Permittees may close a TSD unit to background levels as  
38 defined in Department approved Hanford Site Background  
39 Documents if background concentrations exceed the levels  
40 prescribed by Condition II.K.1. Closure to these levels,  
41 provided the Permittees comply with all other closure  
42 requirements for a TSD unit as identified in Parts III or V  
43 of this Permit, shall be deemed as "clean closure."  
44
- 45 II.K.3. Except for those TSD units identified in Conditions II.K.1.,  
46 II.K.2., or II.K.4., the Permittees may close a TSD unit to  
47 a cleanup level specified under Method C of Chapter 173-340  
48 WAC. Closure of a TSD unit to these levels, provided the  
49 Permittees comply with all other closure requirements for

1 the TSD unit as specified in Parts III or V of the Permit,  
2 and provided the Permittees comply with Conditions II.K.3.a.  
3 through II.K.3.c, shall be deemed as a "modified closure."  
4

5 II.K.3.a. For "modified closures," the Permittees shall provide  
6 institutional controls in accordance with WAC 173-340-440  
7 which restricts access to the TSD unit for a minimum of five  
8 (5) years following completion of closure. The specific  
9 details and duration of institutional controls shall be  
10 specified in Parts III or V of this Permit for a particular  
11 TSD unit.  
12

13 II.K.3.b. For "modified closures", the Permittees shall provide  
14 periodic assessments of the TSD unit to determine the  
15 effectiveness of the closure. The specific details of the  
16 periodic assessments shall be specified in Parts III or V of  
17 this Permit. The periodic assessments shall include, as a  
18 minimum, a compliance monitoring plan in accordance with WAC  
19 173-340-410 that will address the assessment requirements on  
20 a unit by unit basis. At least one (1) assessment activity  
21 shall take place after a period of five (5) years from the  
22 completion of closure, which will demonstrate whether the  
23 soils and groundwater have been maintained at or below the  
24 allowed concentrations as specified in Parts III or V of  
25 this Permit. Should the required assessment activities  
26 identify contamination above the allowable limits as  
27 specified in Parts III or V, the TSD unit must be further  
28 remediated or the requirements of II.K.4. must be followed.  
29 Should the required assessment activities demonstrate that  
30 contamination has diminished or remained the same, the  
31 Permittees may request that the Department reduce or  
32 eliminate the assessment activities and/or institutional  
33 controls.  
34

35 II.K.3.c. For "modified closures", the Permittees shall specify the  
36 specific activities required by this Condition in a  
37 postclosure permit application.  
38

39 II.K.4. For any TSD unit which Conditions II.K.1., II.K.2., or  
40 II.K.3., are not chosen as the closure option, closing the  
41 TSD unit as a landfill may be selected. Closure and  
42 postclosure of the TSD unit as a landfill must follow the  
43 procedures and requirements specified in WAC 173-303-610.  
44

45 II.K.5. The cleanup option selected shall be specified in Parts III  
46 or V of this Permit and shall be chosen with consideration  
47 of the potential future site use for that TSD unit/area.  
48 Definitions contained within Chapter 173-340 WAC shall apply

1 to Condition II K. where definitions are not otherwise  
2 provided by this Permit, the FFACO, or Chapter 173-303 WAC.

3  
4 II.K.6. Deviations from a TSD unit closure plan required by  
5 unforeseen circumstances encountered during closure  
6 activities which do not impact the overall closure strategy  
7 but provide equivalent results shall be documented in the  
8 TSD unit-specific operating record and made available to the  
9 Department upon request or during the course of an  
10 inspection.

11  
12 II.K.7. Where agreed to by the Department, integration of other  
13 statutorily or regulatory mandated cleanups may be  
14 accommodated by this Permit. Results from other cleanup  
15 investigation activities shall be used whenever possible to  
16 supplement and/or replace TSD unit closure investigation  
17 activities. All, or appropriate parts of, multipurpose  
18 cleanup and closure documents can be incorporated into this  
19 Permit through the Permit modification process. Cleanup and  
20 closures conducted under any statutory authority with  
21 oversight by either the Department or the Agency which meets  
22 the equivalent of the technical requirements of Conditions  
23 II.K.1. through II.K.4. may be considered as satisfying the  
24 requirements of this Permit.

25  
26 II.L. DESIGN AND OPERATION OF THE FACILITY

27  
28 II.L.1. **Proper Design and Construction**

29  
30 The Permittees shall design, construct, maintain, and  
31 operate the Facility to minimize the possibility of a fire,  
32 explosion, or any unplanned sudden or non-sudden release of  
33 hazardous substances to air, soil, ground water, or surface  
34 water which could threaten human health or the environment.

35  
36 II.L.2. **Design Changes, Nonconformance, and As-Built Drawings**

37  
38 II.L.2.a. The Permittees shall conduct all construction subject to  
39 this Permit in accordance with the approved designs, plans  
40 and specifications that are required by this Permit unless  
41 authorized otherwise in Conditions II.L.2.b. or II.L.2.c.  
42 For purposes of Conditions II.L.2.b. and II.L.2.c., a  
43 Department construction inspector or TSD unit manager are  
44 designated representatives of the Department.

45  
46 II.L.2.b. During construction of a project subject to this Permit,  
47 changes to the approved designs, plans and specifications  
48 shall be formally documented with an Engineering Change  
49 Notice (ECN). All ECNs shall be maintained in the TSD unit-

1 specific operating record and shall be made available to the  
2 Department upon request or during the course of an  
3 inspection. The Permittees shall provide copies of ECNs  
4 affecting any critical system to the Department within five  
5 (5) working days of initiating the ECN. Identification of  
6 critical systems shall be included by the Permittees in each  
7 TSD unit-specific dangerous waste permit application,  
8 closure plan or Permit modification, as appropriate. The  
9 Department will review an ECN modifying a critical system  
10 and inform the Permittees within two (2) working days in  
11 writing whether the proposed ECN, when issued, will require  
12 a Class 1, 2, or 3 permit modification. If after two (2)  
13 working days the Department has not responded, it will be  
14 deemed as acceptance of the ECN by the Department.  
15

16 II.L.2.c.

17 During construction of a project subject to this Permit, any  
18 work completed which does not meet or exceed the standards  
19 of the approved design, plans and specifications shall be  
20 formally documented with a nonconformance report (NCR). All  
21 NCRs shall be maintained in the TSD unit-specific operating  
22 record and shall be made available to the Department upon  
23 request or during the course of an inspection. The  
24 Permittees shall provide copies of NCRs affecting any  
25 critical system to the Department within five (5) working  
26 days after identification of the nonconformance. The  
27 Department will review an NCR affecting a critical system  
28 and inform the Permittees within two (2) working days in  
29 writing whether a permit modification is required of any  
30 nonconformance and whether prior approval is required from  
31 the Department before work proceeds which affects the  
32 nonconforming item. If the Department does not respond  
33 within two (2) working days, it will be deemed as acceptance  
34 and no permit modification is required.

35 II.L.2.d.

36 Upon completion of a construction project subject to this  
37 Permit, the Permittees shall produce as-built drawings of  
38 the project which incorporate the design and construction  
39 modifications resulting from all project ECNs and NCRs as  
40 well as modifications made pursuant to WAC 173-303-830. The  
41 Permittees shall place the drawings into the operating  
42 record within 12 months of completing construction, or  
43 within an alternate period of time specified in a unit-  
44 specific Condition in Part III or V of this Permit.

45 II.L.3.

**Facility Compliance**

46 The Permittees in receiving, storing, transferring,  
47 handling, treating, processing, and disposing of dangerous  
48

1 waste shall design, operate and/or maintain the Facility in  
2 compliance with all applicable federal, state and local laws  
3 and regulations.

4  
5 **II.M. SECURITY**

6  
7 The Permittees shall comply with the security provisions of  
8 WAC 173-303-310. The Permittees may comply with the  
9 requirements of WAC 173-303-310(2) on a unit-by-unit basis.

10  
11 **II.N. RECEIPT OF DANGEROUS WASTES GENERATED OFF-SITE**

12  
13 **II.N.1. Receipt of Off-Site Waste**

14  
15 The Permittees shall comply with Conditions II.N.2. and  
16 II.N.3. for any dangerous wastes which are received from  
17 either sources outside the United States or from off-site  
18 generators.

19  
20 **II.N.2. Waste From Sources Outside the United States**

21  
22 The Permittees shall meet the requirements of WAC 173-303-  
23 290(1) for waste received from outside the United States.

24  
25 **II.N.3. Notice to Generator**

26  
27 For waste received from off-site sources (except where the  
28 owner/operator is also the generator), the Permittees shall  
29 inform the generator in writing that they have the  
30 appropriate permits for, and will accept, the waste the  
31 generator is shipping, as required by WAC 173-303-290(3).  
32 The Permittees shall keep a copy of this written notice as  
33 part of the TSD unit-specific operating record.

34  
35 **II.O. GENERAL INSPECTION REQUIREMENTS**

36  
37 **II.O.1. The Permittees shall inspect the Facility to prevent**  
38 **malfunctions and deterioration, operator errors, and**  
39 **discharges which may cause or lead to the release of**  
40 **dangerous waste constituents to the environment, or a threat**  
41 **to human health. Inspections must be conducted in**  
42 **accordance with the provisions of WAC 173-303-320(2). In**  
43 **addition to the PSI unit inspections specified in Parts III**  
44 **or V, the following inspections will also be conducted.**

45  
46 **II.O.1.a. The 100, 200 East, 200 West, 300, 400, and 1100 areas shall**  
47 **be inspected annually.**  
48

1 II.O.1.b. The Permittees shall inspect the banks of the Columbia  
2 River, contained within the Facility boundary, two (2) times  
3 yearly. One (1) inspection shall occur at the low water  
4 mark of the year and one (1) inspection shall occur at a  
5 time chosen by the Permittees. These inspections shall be  
6 performed from the river by boat, and the inspectors shall  
7 follow the criteria in Condition II.O.1.c.  
8

9 II.O.1.c. The Permittees shall visually inspect the areas identified  
10 in Conditions II.O.1.a. and II.O.1.b. for malfunctions,  
11 deterioration, operator errors, and discharges which may  
12 cause or lead to the release of dangerous waste constituents  
13 to the environment or that threaten human health. Specific  
14 items to be noted are as follows:  
15

- 16 i. Remains of waste containers, labels or other waste  
17 management equipment;
- 18 ii. Solid waste disposal sites not previously identified  
19 for remedial action;
- 20 iii. Uncontrolled waste containers (e.g., orphan drums);
- 21 iv. Temporary or permanent activities that could generate  
22 an uncontrolled waste form; and,  
23
- 24 v. Unpermitted waste discharges.  
25  
26  
27  
28

29 II.O.1.d. The Permittees shall notify the Department at least seven  
30 (7) days prior to conducting these inspections in order to  
31 allow representatives of the Department to be present during  
32 the inspections.  
33

34 II O.2. If the inspection by the Permittees conducted pursuant to  
35 Condition II O.1. reveals any problems, the Permittees shall  
36 take remedial action on a schedule agreed to by the  
37 Department.  
38

39 II.O.3. The inspection of high radiation areas will be addressed on  
40 a case-by-case basis in either Part III of this Permit or  
41 prior to the inspections required in Condition II.O.1.  
42

43 II P. MANIFEST SYSTEM

44  
45 II P.1. The Permittees shall comply with the manifest requirements  
46 of WAC 173-303-370 for waste received from off-site and WAC  
47 173-303-180 for waste shipped off-site.  
48

1 II.P.2. Transportation of dangerous wastes along State Highways 240,  
2 24, and 243, and Route 4 South (Stevens Drive) south of the  
3 Wye Barricade, if such routes are not closed to general  
4 public access at the time of shipment, shall be manifested  
5 pursuant to Condition II.P.1.  
6

7 II.Q. ON-SITE TRANSPORTATION  
8

9 II.Q.1. Documentation must accompany any on-site dangerous waste  
10 which is transported to or from any TSD unit subject to this  
11 Permit through or within the 600 Area, unless the roadway is  
12 closed to general public access at the time of shipment.  
13 Waste transported by rail or by pipeline is exempt from this  
14 Condition. This documentation shall include the following  
15 information, unless other unit-specified provisions are  
16 designated in Part III or V.  
17

18 II.Q.1.a. Generator's name, location and telephone number;  
19

20 II.Q.1.b. Receiving TSD unit's name, location, and telephone number;  
21

22 II.Q.1.c. Description of waste;  
23

24 II.Q.1.d. Number and type of containers;  
25

26 II.Q.1.e. Total quantity of waste;  
27

28 II.Q.1.f. Unit volume/weight;  
29

30 II.Q.1.g. Dangerous waste number(s); and,  
31

32 II.Q.1.h. Any special handling instructions.  
33

34 II.Q.2. All non-containerized solid, dangerous waste transported to  
35 or from TSD units subject to this Permit shall be covered to  
36 minimize the potential for material to escape during  
37 transport.  
38

39 II.R. EQUIVALENT MATERIALS  
40

41 II.R.1. The Permittees may substitute an equivalent or superior  
42 product for any equipment or materials specified in this  
43 Permit. Use of equivalent or superior products shall not be  
44 considered a modification of this Permit. A substitution  
45 will not be considered equivalent unless it is at least as  
46 effective as the original equipment or materials in  
47 protecting human health and the environment.  
48

- 1 II.R.2. The Permittees shall place in the operating record (within  
2 seven (7) days after the change is put into effect) the  
3 substitution documentation, accompanied by a narrative  
4 explanation, and the date the substitution became effective.  
5 The Department may judge the soundness of the substitution.  
6
- 7 II.R.3. If the Department determines that a substitution was not  
8 equivalent to the original, it will notify the permittees  
9 that the Permittees' claim of equivalency has been denied,  
10 of the reasons for the denial, and that the original  
11 material or equipment must be used. If the product  
12 substitution is denied, the Permittees shall comply with the  
13 original approved product specification or find an  
14 acceptable substitution.  
15
- 16 II.S. LAND DISPOSAL RESTRICTIONS  
17  
18 Unless specifically identified otherwise in the FFACO, the  
19 Permittees shall comply with all Land Disposal Restriction  
20 requirements as set forth in WAC 173-303-140.  
21
- 22 II.T. ACCESS AND INFORMATION  
23  
24 To the extent that work required by this Permit must be done  
25 on property not owned or controlled by the Permittees, the  
26 Permittees must utilize their best efforts to obtain access  
27 and information at these locations.  
28
- 29 II.U. MAPPING OF UNDERGROUND PIPING  
30
- 31 II.U.1. Within 24 months of the effective date of the Permit, the  
32 Permittees shall submit a report to the Department which  
33 describes the procedures proposed to be used to compile the  
34 information required by Conditions II.U.2., II.U.3., and  
35 II.U.4. The report shall describe the methods which will be  
36 used to retrieve the piping information, the estimated  
37 accuracy of the data to be provided, quality assurance  
38 and/or quality control techniques to be employed including  
39 field verification activities (i.e., surveying, ground  
40 penetrating radar, etc.) to support information gathered  
41 from existing drawings, and conceptual examples of the  
42 product which will be submitted.  
43
- 44 II.U.2. Within 36 months of the effective date of this Permit, the  
45 Permittees shall make an initial submittal to the Department  
46 of maps showing the location of dangerous waste underground  
47 pipelines (including active, inactive, and abandoned  
48 pipelines which contain or contained dangerous waste subject  
49 to the provisions of Chapter 173-303 WAC) on the Facility

1 which are located outside of the fences enclosing the 200  
2 East, 200 West, 300, 400, 100N, and 100K Areas. These maps  
3 shall identify the origin, destination, size, depth and type  
4 (i.e., reinforced concrete, stainless steel, cast iron,  
5 etc.) of each pipe and the location of their diversion  
6 boxes, valve pits, seal pots, catch tanks, receiver tanks,  
7 and pumps, utilizing Washington State Plane Coordinates, NAD  
8 83(91), meters. If the type of pipe material is not  
9 documented on existing drawings, the most probable material  
10 type shall be provided. These maps shall be accompanied by  
11 a description of the quality assurance and quality control  
12 measures used to compile the maps.  
13

14 The age of all pipes required to be identified pursuant to  
15 this Condition shall be documented in an attachment to the  
16 submittal. If the age cannot be documented, an estimate of  
17 the age of the pipe shall be provided based upon best  
18 engineering judgement.  
19

20 These maps, and any attachments, shall be maintained in the  
21 Facility Operating Record and updated annually after the  
22 initial submittal with new or revised information. Each map  
23 submittal required by this Condition shall incorporate  
24 information available six months before the scheduled  
25 submittal date  
26

27 II.U.3.

28 Within 48 months of the effective date of this Permit, the  
29 Permittees shall make an initial submittal to the Department  
30 of piping schematics for dangerous waste underground  
31 pipelines (including active, inactive, and abandoned  
32 pipelines which contain or contained dangerous waste subject  
33 to the provisions of Chapter 173-303 WAC) within the 200  
34 East, 200 West, 300, 400, 100N, and 100K Areas. The piping  
35 schematics shall identify the origin, destination, and  
36 direction of flow for each pipe, as well as whether the pipe  
37 is active, inactive, or abandoned. These schematics need  
38 not include the pipes within a fenced tank farm or within a  
39 building/structure. These schematics shall be accompanied  
40 by a description of the quality assurance and quality  
41 control measures used to compile the maps.  
42

43 These schematics and any attachments, shall be maintained in  
44 the Facility Operating Record and updated annually after the  
45 initial submittal with new or revised information. Each map  
46 submittal required by this Condition shall incorporate  
47 information available six months before the scheduled  
48 submittal date.

1 II.U.4.

2 Within 48 months of the effective date of this Permit, the  
3 Permittees shall make an initial submittal to the Department  
4 of maps showing the location of dangerous waste underground  
5 pipelines (including active, inactive, and abandoned  
6 pipelines which contain or contained dangerous waste subject  
7 to the provisions of Chapter 173-303 WAC) within the 200  
8 East, 200 West, 300, 400, 100N, and 100K Areas. These maps  
9 will incorporate information available six months prior to  
10 the scheduled submittal date. Thereafter, the maps will be  
11 updated on an annual basis to incorporate additional  
12 information, as such information becomes available in  
13 accordance with the FFACO milestone schedule. A schedule  
14 for the provision of map input shall be included in the  
15 report specified in Condition II.U.1.

16 The maps shall identify the origin, destination, size, depth  
17 and type (i.e., reinforced concrete, stainless steel, cast  
18 iron, etc.) of each pipe and the location of their diversion  
19 boxes, valve pits, seal pots, catch tanks, receiver tanks,  
20 and pumps, and utilize Washington State Plan Coordinates,  
21 NAD 83(91), meters. If the type of pipe material is not  
22 documented on existing drawings, the most probable material  
23 type shall be provided. These maps need not include the  
24 pipes within a fenced tank farm or within a  
25 building/structure. These maps shall be accompanied by a  
26 description of the quality assurance/quality control used to  
27 compile the maps.

28  
29 The age of all pipes required to be identified pursuant to  
30 this Condition shall be documented in an attachment to the  
31 submittal. If the age cannot be documented, an estimate of  
32 the age of the pipe shall be provided based upon best  
33 engineering judgement.

34  
35 These maps, and any attachments, shall be maintained in the  
36 Facility Wide Operating Record and updated annually after  
37 the initial submittal with new or revised information.

38  
39 II.V.

MARKING OF UNDERGROUND PIPING

40  
41 Within 36 months of the effective date of this Permit, the  
42 Permittees shall mark the underground pipelines identified  
43 in Condition II.U.2. These pipelines shall be marked at the  
44 point they pass beneath a fence enclosing the 200 East, 200  
45 West, 300, 400, 100N or 100K Areas, at their origin and  
46 destination, at any point they cross an improved road and  
47  
48

1 every 100 meters along the pipeline corridor where  
2 practicable. The markers shall be labeled with a sign that  
3 reads "Buried Dangerous Waste Pipe" and shall be visible  
4 from a distance of 15 meters.  
5

6 II.W. OTHER PERMITS AND/OR APPROVALS

7  
8 II.W.1. The Permittees shall be responsible for obtaining all other  
9 applicable federal, state, and local permits authorizing the  
10 development and operation of the Facility. To the extent  
11 that work required by this Permit must be done under a  
12 permit and/or approval pursuant to other regulatory  
13 authority, the Permittees shall use their best efforts to  
14 obtain such permits. Copies of all documents relating to  
15 actions taken, pursuant to this Condition, shall be kept in  
16 the operating record.  
17

18 II.W.2. All other permits related to dangerous waste management  
19 activities are severable and enforceable through the  
20 permitting authority under which they are issued.  
21

22 II.W.3. All air emissions from TSD units subject to this Permit  
23 shall comply with all applicable State and Federal  
24 regulations pertaining to air emission controls, including  
25 but not limited to, Chapter 173-400 WAC, General Regulations  
26 for Air Pollution Sources; Chapter 173-460 WAC, Controls for  
27 New Sources of Toxic Air Pollutants; and Chapter 173-480  
28 WAC, Ambient Air Quality Standards and Emission Limits for  
29 Radionuclides.  
30

31 II.X. SCHEDULE EXTENSIONS

32  
33 II.X.1 The Permittees shall notify the Department in writing as  
34 soon as possible of any deviations or expected deviations  
35 from the schedules of this Permit. The Permittees shall  
36 include with the notification all information supporting  
37 their claim that they have used best efforts to meet the  
38 required schedules. If the Department determines that the  
39 ~~Permittees have made best efforts to meet the schedules of~~  
40 this Permit, the Department shall notify the Permittees in  
41 writing by certified mail that the Permittees have been  
42 granted an extension. Such an extension shall not require a  
43 permit modification under Condition I.C.3. Should the  
44 Department determine that the Permittees have not made best  
45 efforts to meet the schedules of this Permit, the Department  
46 may take such action as deemed necessary.  
47

48 Copies of all correspondence regarding schedule extensions  
49 shall be kept in the operating record.

Permit Number: WA7890008967  
Revision Number 1  
Expiration Date: September 27, 2004  
Page 52 of 90

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

PART III - UNIT-SPECIFIC CONDITIONS FOR FINAL STATUS OPERATIONS

CHAPTER 1

**616 Nonradioactive Dangerous Waste Storage Facility**

The 616 Nonradioactive Dangerous Waste Storage Facility (NRDWSF) is an active storage unit for dangerous wastes that are shipped to off-site commercial treatment or disposal facilities. This Chapter sets forth the operating Conditions for this TSD unit.

III.1.A COMPLIANCE WITH APPROVED PERMIT APPLICATION

The Permittees shall comply with all the requirements set forth in the 616 Nonradioactive Dangerous Waste Storage Facility Permit Application, Rev. 2, as found in Attachment 8, including the amendments specified in Condition III.1.B. Enforceable portions of the application are listed below (All subsections, figures, and tables included in these portions are also enforceable unless stated otherwise):

Part A Application

- Section 2.1.3 The 616 Non-radioactive Dangerous Waste Storage Facility Description
- Section 2.2 Topographic Maps
- Section 2.5 Performance Standards
- Section 2.7.1 Spills and Discharges Into the Environment
- Section 2.8 Manifest System
- Chapter 3.0 Waste Characteristics
- Chapter 4.0 Process Information
- Chapter 6.0 Procedures to Prevent Hazards
- Chapter 7.0 Contingency Plan
- Chapter 8.0 Personnel Training
- Chapter 11.0 Closure and Post-Closure Requirements
- Chapter 12.0 Reporting and Recordkeeping
- Section 13.7 Toxic Substance Control Act of 1976

1	Section 13.8	Other Requirements
2		
3	Appendix 2A	Drawing H-13-000014, 616 NRDWSF
4		Topographic Map
5		
6	Appendix 4B	Drawing H-6-1553, Architectural Plan,
7		Elevations and Sections, Rev. 3
8		
9	Appendix 4B	Drawing H-6-1556, Structural Plan and
10		Sections, Rev. 2
11		
12	Appendix 7A	Building Emergency Plan - 616 Building
13		
14	Appendix 11B	Description of Procedures
15		
16	III.1.B.	<u>AMENDMENTS TO THE APPROVED PERMIT APPLICATION</u>
17		
18	III.1.B a.	Page 2-7, line 25. The words "can be" are changed to "shall
19		be."
20		
21	III.1.B.b.	Page 2-16, line 45. An additional bullet is added to the
22		text which reads as follows: "In addition, all reporting
23		requirements identified in Conditions I.E.15. through
24		I.E.22. of this Permit shall be complied with."
25		
26	III.1.B c.	Page 2-17, line 24. The word "voluntarily" is deleted from
27		the text.
28		
29	III.1.B.d.	Page 2-17, line 26. The words "information on" is changed
30		to "requirements for."
31		
32	III.1.B.e.	Page 3-6, line 44. The term "Table 3-3" is deleted and
33		replaced with "Sections 3.2.2 through 3.2.4 and 3.2.6".
34		
35	III.1.B f.	Page 3-7, lines 3-11. These lines are deleted and replaced
36		with the following
37		
38		Prior to acceptance of wastes at 616 NRDWSF, confirmation of
39		designation may be required by solid Waste Engineering
40		(Section 3.2.4). The Wastes which shall undergo
41		confirmation of designation are identified in Condition
42		III.1.B.n. of this Permit and may be divided into two
43		groups, those that easily yield a representative sample
44		(Category I) and those that do not (Category II). The
45		steps for each type are outlined below along with a
46		description of which wastes fall into each category:
47		
48		Category I. If a waste which easily yields a representative
49		sample is received a representative sample will be taken of

1 the waste. If more than one phase is present, each phase  
2 must be tested individually. The following field tests will  
3 be performed:  
4

- 5 \* Reactivity - HAZCAT™ oxidizer, cyanide, and sulfide  
6 tests. These tests will not be performed on materials  
7 known to be organic peroxides, ethers, and/or water  
8 reactive compounds.  
9
- 10 \* Flashpoint/explosivity - by HAZCAT™ flammability  
11 procedure B, explosive atmosphere meter<sup>1</sup>, or a closed  
12 cup flashpoint measurement instrument<sup>1</sup>.  
13
- 14 \* pH - by pH meter<sup>1</sup> or pH paper (SW-846-9041).<sup>2</sup> This  
15 test will not be performed on non-aqueous materials.  
16
- 17 \* Halogenated organic compounds - by Chlor-D-Tect™  
18 kits.  
19
- 20 \* Volatile organic compounds - by photo or flame  
21 ionization tester<sup>1</sup>, by gas chromatography with or  
22 without mass spectrometry, or by melting point and/or  
23 boiling point determination.  
24

25 <sup>1</sup>These instruments are field calibrated or checked for  
26 accuracy daily when in use.  
27

28 <sup>2</sup>The pH paper must have a distinct color change every 0.5 pH  
29 unit and each batch of paper must be calibrated against  
30 certified pH buffers or by comparison with a pH meter  
31 calibrated with certified pH buffers.  
32

33 If the waste meets the parameters specified in its  
34 documentation, within a 10% tolerance, confirmation of  
35 designation is complete. If it does not meet these  
36 parameters, sample and analyze the materials in accordance  
37 with WAC 173-303-110. See Table 3-4 for a list of  
38 analytical methodologies and Table 3-5 for sampling  
39 methodologies. This is considered a significant error under  
40 Section 3.2.4. Re-assess and re-designate the waste.  
41 Repackage and label as necessary or return to the generating  
42 unit.  
43

44 When mathematically possible, the Permittees shall perform  
45 confirmation on an equal number of Category I and Category  
46 II containers.  
47

48 Category II. If a representative sample is not easily  
49 obtained (for example, discarded machinery or shop rags) or

1 if the waste is a labpack or discarded laboratory reagent  
2 container, the following steps will be performed:

- 3
- 4 a. Visually verify the waste. Labpacks and combination  
5 packages must be removed from the outer container. If  
6 the waste meets the parameters specified in its  
7 documentation, confirmation of designation is  
8 complete. If it does not meet these parameters,  
9 proceed to the next step. This is considered a  
10 significant error under Section 3.2.4.
- 11
- 12 b. If possible and necessary, segregate/repackage the  
13 waste for shipment in a compliant manner. If the  
14 waste is not packaged in compliance with shipping  
15 requirements proceed to the next step.
- 16
- 17 c. The waste must be re-designated using designation  
18 methods identified in WAC 173-303-070 through 173-303-  
19 100."
- 20

21 III.1.B.g. Page 3-7, line 17. The following line is added: "Petitions  
22 to use an alternate test method shall be submitted in  
23 accordance with WAC 173-303-910."

24

25 III.1.B.h. Page 3-7, line 18. The following paragraph is added: "All  
26 analytical tests performed to fulfill the requirements of  
27 Sections 3.2.4 and 4.1.1.8 (Frequency of Analysis and  
28 Removal of Liquids from Containment System, respectively)  
29 shall be performed in accordance with WAC 173-303-110. New  
30 test methods shall be used within 90 days of the effective  
31 date of the State regulations or laws that mandate the use  
32 of the test method. To ensure analytical quality control,  
33 all analyses must fulfill, at a minimum, the quality  
34 procedures specified in SW-846 Volume II."

35

36 III.1.B.i. Page 3-7, line 33. The words "is adequate" are deleted and  
37 replaced with "must be adequate."

38

39 III.1.B.j. Page 3-7, line 35. The words "is performed" are deleted and  
40 replaced with "must be performed."

41

42 III.1.B.k. Page 3-7, line 40. The word "representative" is inserted  
43 between the words "obtaining" and "samples."

44

45 III.1.B.l. Page 3-8, line 1. The following sentence is inserted before  
46 the word "Appropriate": "To ensure sample quality control,  
47 all sampling efforts must, at a minimum, be in accordance  
48 with the procedures specified in WAC 173-303-110."

49

- 1 III.1.B.m. Page 3-8, line 1. "Appropriate preservation" is deleted and  
2 replaced with "Appropriate packaging and preservation."  
3
- 4 III.1.B.n. Page 3-8, line 8. The following paragraph is added:  
5  
6 "At least five percent (5%) of the waste containers stored  
7 at 616 NRDWSF during a Federal fiscal year (October 1  
8 through September 30) will undergo confirmation of  
9 designation pursuant to Sections 3.2.2 and 3.2.3 (Test  
10 Methods and Sampling Methods, respectively). The number of  
11 containers to meet the five percent (5%) requirement is the  
12 average of containers for the previous three months. For  
13 example, if 200 containers are received in January, 180 in  
14 February, and 220 in March then 10 containers of inbound  
15 waste must undergo confirmation of designation in April.  
16 All generating units which ship more than twenty (20)  
17 containers through 616 NRDWSF in a fiscal year will have at  
18 least one (1) container sampled and analyzed. Containers  
19 for which there is insufficient process knowledge or  
20 analytical information to designate without sampling and  
21 analysis may not be counted as part of the five percent (5%)  
22 requirement unless there is additional confirmation of  
23 designation independent of the generator designation. The  
24 generating unit's staff shall not select the waste  
25 containers to be sampled and analyzed other than identifying  
26 containers for which insufficient information is available  
27 to designate."  
28
- 29 III.1.B.o. Page 3-8, line 30. Delete the first sentence of the  
30 paragraph and replace it with the following: "To be  
31 acceptable at 616 NRDWSF, samples of non-radioactive waste  
32 streams must be documented to have been sent to a laboratory  
33 for waste profiling when newly identified or whenever the  
34 process used or raw materials usage changes, and at least  
35 annually thereafter, to ensure that the waste designation  
36 assigned by the Solid Waste Engineering staff (Section 3.2)  
37 is accurate and in compliance with land ban restrictions."  
38
- 39 III.1.B.p. Page 3-8, line 29. The words "For two months" are deleted  
40 and replaced with "For the next six shipments or two months,  
41 whichever is longer, to 616 NRDWSF."  
42
- 43 III.1.B.q. Page 3-8, line 32. The following line is added to the end  
44 of the paragraph: "The laboratory verification results  
45 shall be obtained in accordance with WAC 173-303-110."  
46
- 47 III.1.B.r. [Reserved]  
48

- 1 III.1.B.s. Page 4-5, line 4. Add the following after the word  
2 "performed": "after determination by the Building Emergency  
3 Director (BED) that implementation of the Contingency Plan  
4 pursuant to Appendix 7A is not necessary or all necessary  
5 actions in accordance with the Contingency Plan have been  
6 implemented. Either case must be recorded and signed in the  
7 TSD unit-specific operating record by the BED."  
8
- 9 III.1.B.t. [Reserved]
- 10  
11 III.1.B.u. Page 4-5, line 32. The following sentence is added: "The  
12 616 NRDWSF staff will ensure that waste is properly  
13 packaged, labeled, marked, and stored."  
14
- 15 III.1.B.v. Page 4-5, line 45. The sentence "Wherever possible, organic  
16 free water will be used as the collection medium to minimize  
17 the generation of additional dangerous waste." is deleted.  
18
- 19 III.1.B.w. Page 4-5, line 46. The following sentence is added after  
20 "spilled material" "All samples taken to verify that the  
21 site of a release is clean will be obtained in accordance  
22 with the applicable standards of Section 11.1.5. et seq."  
23
- 24 III.1.B.x. Figure 6-2, Section 2.0, Hallway. Revise the checklist to  
25 read "Protective equipment supply present per the emergency  
26 equipment list." This equipment shall be individually  
27 inspected and documented by type, and be in adequate  
28 condition, and in the quantities listed. The revised  
29 checklist shall be submitted for approval to the Department  
30 within 30 days of the effective date of this Permit.  
31
- 32 III.1.B.y. Page 8-28, lines 5 through 8. These lines are deleted.  
33
- 34 III.1.B.z. Chapter 11. All sampling and analyses necessary for soils  
35 underneath a contaminated concrete layer must be performed  
36 prior to removal of the overlying concrete. All soils which  
37 exceed the clean closure standards of WAC 173-303-610(2)(b)  
38 shall be managed in a manner analogous to that for  
39 contaminated surrounding soil as described in Chapter 11 of  
40 Attachment 8.  
41
- 42 III.1.B.aa. Page 11-2, line 1. The words "In general," are deleted from  
43 the text. The "t" on "these" is capitalized to read  
44 "These".  
45
- 46 III.1.B.bb. Table 11-1, page T11-1. In addition to the analyses in  
47 Table 11-1, the concrete samples shall also be analyzed for  
48 all dangerous waste constituents documented to have been  
49 spilled at the 616 NRDWSF during its operating life. These

- 1 analyses shall be performed in accordance with WAC 173-303-  
2 110 including the quality assurance and quality control  
3 requirements delineated in SW-846. Action levels shall be  
4 based on the level of quantitation for each analyte. Final  
5 decisions based on health based standards shall be subject  
6 to approval or rejection by the Department.  
7
- 8 III.1.B.cc. Page 12-5, line 28 Replace the words "via line management,  
9 that the" with "via line management, when the".
- 10  
11 III.1.B.dd. Page 12-5, line 41 The words, "outside the Hanford  
12 Facility" are deleted.
- 13  
14 III.1.B.ee. Page 12-12, line 16. The last two sentences of this  
15 paragraph are deleted.
- 16  
17 III.1.B.ff. Table 12-1 "Reports and Records." A definition of the  
18 footnote "a" is added to the bottom of the table as follows:  
19  
20 "a Hanford Facility means the reports and records are  
21 available through the Facility Regulatory File index  
22 pursuant to Section 12.0. Until the index is implemented,  
23 reports and records will be available at the Facility, but  
24 not necessarily at the 616 NRDWSF.  
25  
26 616 NRDWSF means the reports and records are available at  
27 the 616 NRDWSF office."  
28
- 29 III.1.B.gg. Chemical, biological, and physical analyses of the dangerous  
30 waste to be handled at 616 NRDWSF pursuant to WAC 173-303-  
31 806(4)(a), entitled "616 Nonradioactive Dangerous Waste  
32 Facility Off-Site Shipping Lists," is found in Attachment 9  
33 of this Permit.  
34
- 35 III.1.B.hh. The description of procedures as referenced in Appendix 11B  
36 are provided in various sections of *Procedure Description*,  
37 January 13, 1991 (Attachment 10). The specific sections of  
38 Attachment 10 which are incorporated into the Permit are  
39 listed in Table III-1, below, by procedure. No part of  
40 Attachment 10 shall supersede any part of Attachment 8.  
41

Number	Procedure	Pages	Sections
11B-1	Preparing Health and Safety Plan	1-4	1.0, 2.0, 3.0, 4.2, 5.0, 5.1, 5.2, 6.0, 6.1, 6.2
11B-2	Decontaminating Sampling Equipment	13-24	1.0, 2.0, 3.0, 5.2, 5.3, 6.1, 6.2, 6.3
11B-3	Evaluating Data	25-26, 28-29	1.0, 2.0, 3.0, 4.7, 5.0
11B-4	Packaging Samples	32-35	1.0, 4.0, 4.1, 5.0, 5.1, 5.2
11B-5	Soil and Sediment Sample Containers	6-11	1.0, 3.0, 4.2, 6.2, 6.3, 6.4, 6.5, 6.6, 6.7, 6.8
11B-6	Ensuring Quality Control of Records and Documentation	70-77	1.0, 3.0, 4.0, 4.1, 4.2, 4.3, 5.1, 5.2, 5.3, 5.4, 5.5, 5.6, 5.7, 6.0, 6.2, 6.3, 6.4, 6.5, 6.6
11B-7	Maintaining a Field Logbook	14-48	1.0, 3.0, 5.0, 5.1, 5.1.1, 5.1.2, 5.1.3, 5.1.4, 5.1.5, 6.0, 6.1, 6.2, 7.0
11B-8	Chain-of-Custody	39-43	1.0, 3.0, 4.0, 4.1, 4.2, 4.3, 4.4, 4.5, 5.0, 6.0, 6.1, 6.2, 6.3, 6.4, 6.5, 6.7
11B-9	Controlling Unknown Suspected Waste	49-59	1.0, 3.0, 4.1, 4.2, 4.3, 4.4, 4.5, 5.0, 5.1, 5.2, 6.0, 6.1, 6.2, 6.3, 6.4, 6.6, 6.7, 6.8, 6.9, 6.10, 6.11
11B-10	Deviating from Procedures Used During Closure	60-64	1.0, 2.0, 4.0, 4.2, 5.0, 5.1, 5.2, 5.2.1, 5.2.2, 5.3

Table III-1: Procedures from Attachment 10.

- 14 III.1.B ii. All instances where the emergency response number is cited  
15 as "811" shall be changed to "911."  
16
- 17 III.1.B jj. Part A Application, page 4 of 24, lines 18 and 19. Waste  
18 Code WC01 shall be deleted and the estimated annual volume  
19 of Waste Code WC02 shall be changed to 55,000 kilograms.  
20
- 21 III.1.B kk. Page 2-8, line 3. The following sentence shall be added: "A  
22 mechanical fork truck lift and associated safety equipment  
23 (guards, handrails etc.) are mounted on the containment

1 pad. Design drawings of the mechanical fork truck lift are  
2 provided in Appendix 4B."  
3  
4 III.1.B.ll. Page 2-16, lines 30 and 32. The address "7601 West  
5 Clearwater, Suite 102" shall be changed to "1315 West Fourth  
6 Avenue" and the telephone number "509-546-2990" shall be  
7 changed to "509-735-7581."  
8  
9 III.1.B.mm. Page 2-18, line 38. The following bullet shall be added:  
10 "● Evidence tape from field verified waste is untampered."  
11  
12 III.1.B.nn. Page 3-1, lines 12 through 14. The sentence beginning with  
13 "Nonradioactive dangerous waste . . ." shall be deleted and  
14 replaced with the following: "The 616 NRDWSF stores  
15 nonradioactive dangerous waste that is received from  
16 generating units located on the contiguous Hanford Facility  
17 and from DOE-RL owned and operated generators located on  
18 noncontiguous areas near the Hanford Facility (e.g., Federal  
19 Building and 712 Building in downtown Richland and the 3000  
20 Area). This waste is stored at the 616 NRDWSF until it is  
21 transported to an offsite TSD facility."  
22  
23 III.1.B.oo. Page 3-1, line 20. The term "onsite" shall be deleted and  
24 replaced with "DOE-RL owned and operated."  
25  
26 III.1.B.pp. Page 3-1, lines 21 and 22. The sentence "Shipments are made  
27 from onsite generating units to the 616 NRDWSF." shall be  
28 deleted.  
29  
30 III.1.B.qq. Page 3-1, line 22. The term "onsite" shall be deleted and  
31 replaced with "Hanford Site ". On line 26, the term  
32 "generated onsite" shall be deleted.  
33  
34 III.1.B.rr. Page 3-2, lines 14 and 19. The term "Onsite" shall be  
35 deleted.  
36  
37 III.1.B.ss. Page 3-3, lines 31 through 39. The paragraph on these lines  
38 shall be deleted.  
39  
40 III.1.B.tt. Page 3-4, lines 3 and 16. The term "onsite" shall be  
41 deleted.  
42  
43 III.1.B.uu. Page 3-5, lines 19, 36, 38, and 44. The term "onsite" shall  
44 be deleted.  
45  
46 III.1.B.vv. Page 3-6, lines 13, 15, 19, 23, and 24. The term "onsite"  
47 shall be deleted.  
48

- 1 III.1.B.ww. Page 3-7, line B2. The term "suction pump," shall be added  
2 after the word "device."  
3
- 4 III.1.B.xx. Page 3-8, line 8. The term "onsite" shall be deleted.  
5
- 6 III.1.B.yy. Page 3-8, lines 37 through 40. The paragraph on these lines  
7 shall be deleted and replaced with the following: "All  
8 waste received at the 616 NRDWSF, as described in Section  
9 3.1, is subject to the confirmation of designation sampling  
10 requirements described in Section 3.2. Each shipment of  
11 waste received at the 616 NRDWSF must be accompanied by  
12 accurate and complete waste tracking forms for waste  
13 received from onsite sources and uniform hazardous waste  
14 manifests for waste received from offsite sources."  
15
- 16 III.1.B.zz. Page T4-2, line 31. The word "cabinet" shall be replaced  
17 with "cabinet(s)."  
18
- 19 III.1.B.aaa. Page T4-2, line 34. The following option shall be added:  
20 "or 34 (55 gal) 34 (30 gal) (208.2 liters) (113.6 liters) 2  
21 Flammable liquid storage cabinets (170 gal) (1,024 liters)."  
22
- 23 III.1.B.bbb. Page APP 4B-ii. On line 12, the term "Rev. 2" shall be  
24 replaced with "Rev. 4." At line 13, the following shall be  
25 added: "ECN 191786 (10/28/93)  
26 ECN 176589 (11/16/93)  
27 ECN 605639 (01/17/94)  
28 ECN 605649 (08/01/94)"  
29

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49

CHAPTER 2

**305-B Storage Facility**

The 305-B Storage Facility (305-B) is an active storage unit for dangerous wastes and mixed wastes. These wastes are derived primarily from research and development activities and laboratory activities in the 300 Area. This Chapter sets forth the operating conditions for this TSD unit.

III.2.A. COMPLIANCE WITH APPROVED PERMIT APPLICATION

The Permittees shall comply with all the requirements set forth in the 305-B Storage Facility Dangerous Waste Permit Application, as found in Attachment 18 including the amendments specified in Condition III.2.B. Enforceable portions of the application are listed below (All subsections, figures, and tables included in these portions are also enforceable unless stated otherwise):

Part A Application

- Section 2.2.2 The 305-B Storage Unit
- Section 2.2.1 General Requirement
- Section 2.5 Performance Standard
- Section 2.6 Buffer Monitoring Zones
- Section 2.8 Manifest System
- Chapter 3.0 Waste Characteristics
- Chapter 4.0 Process Information
- Chapter 6.0 Procedures to Prevent Hazards
- Chapter 7.0 Contingency Plan
- Chapter 8.0 Personnel Training
- Chapter 11.0 Closure and Postclosure Requirements
- Chapter 12.0 Reporting and Recordkeeping
- Section 13.8 Toxic Substances Control Act
- Section 13.9 Other Requirements

Appendix 2A Hanford Site and 300-Area Topographic  
Maps, Plates 2-2 Through 2-9

III.2.B. AMENDMENTS TO THE APPROVED PERMIT APPLICATION

III.2.B a. For all shipments of dangerous waste to or from this TSD unit, except for shipments which occur wholly within the 300 Area, the Permittees shall comply with Conditions II.P. and II.Q. of this Permit regarding dangerous waste shipment manifesting and transportation.

III.2.B b. Page 3-5, line 41. The following text is added: "The 305-B personnel shall collect from the generating unit(s) the information pursuant to 40 CFR 268.7(a) regarding Land Disposal Restricted (LDR) wastes, the appropriate treatment standards, whether the waste meets the treatment standards, and the certification that the waste meets the treatment standards, if necessary, as well as any waste analysis data that supports the generator's determinations. If this information is not supplied by the generating unit, then the 305-B personnel shall be responsible for completion and transmittal of all subsequent information regarding LDR wastes, pursuant to 40 CFR 268.7(b). All waste streams must be re-characterized at least annually, or when generating unit and/or 305-B personnel have reason to believe the waste stream has changed to determine compliance with LDR requirements in 40 CFR 268.7."

III.2.B c. Page 3-9, line 16. The following is added to the end of this section: "Storage limits for all chemicals are listed in Table 4-1, page 4-18, and 4-19 (Uniform Building Code, Table numbers 9-A and 9-B). This table is incorporated into this section by reference."

III.2.B d. Page 3-10, line 27. The following paragraphs are inserted into this section:

Prior to acceptance of wastes at 305-B, confirmation of designation may be required (Section 3.2.4). The Wastes which shall undergo confirmation of designation are identified in Condition III.2.B.f. of this Permit and may be divided into two groups; those that easily yield a representative sample (Category I), and those that do not (Category II). The steps for each type are outlined below along with a description of which wastes fall into each category:

Category I. If a waste which easily yields a representative sample is received a representative sample will be taken

1 from the waste containers selected. If more than one phase  
2 is present, each phase must be tested individually. The  
3 following field tests will be performed:  
4

- 5 \* Reactivity - HAZCAT™ oxidizer, cyanide, and sulfide  
6 tests. These tests will not be performed on materials  
7 known to be organic peroxides, ethers, and/or water  
8 reactive compounds.  
9
- 10 \* Flashpoint/explosivity - by HAZCAT™ flammability  
11 procedure B, explosive atmosphere meter<sup>1</sup>, or a closed  
12 cup flashpoint measurement instrument<sup>1</sup>.  
13
- 14 \* pH - by pH meter<sup>1</sup> or pH paper (SW-846-9041).<sup>2</sup> This  
15 test will not be performed on non-aqueous materials.  
16
- 17 \* Halogenated organic compounds - by Chlor-D-Tect™  
18 kits.  
19
- 20 \* Volatile organic compounds - by photo or flame  
21 ionization tester<sup>1</sup>, by gas chromatography with or  
22 without mass spectrometry, or by melting point and/or  
23 boiling point determination.  
24

25 <sup>1</sup>These instruments are field calibrated or checked for  
26 accuracy daily when in use.  
27

28 <sup>2</sup>The pH paper must have a distinct color change every 0.5 pH  
29 unit and each batch of paper must be calibrated against  
30 certified pH buffers or by comparison with a pH meter  
31 calibrated with certified pH buffers.  
32

33 If the sample data observed meets the parameters specified  
34 in its documentation, within a 10% tolerance, confirmation  
35 of designation is complete and the waste may be accepted.  
36 If not, the waste is rejected and returned to the generating  
37 unit, and sampling and analysis of the waste is required to  
38 be included with a resubmitted CD/RR.  
39

40 When mathematically possible, the Permittees shall perform  
41 confirmation on an equal number of Category I and Category  
42 II containers.  
43

44 Category II. If a representative sample is not easily  
45 obtained (for example, discarded machinery or shop rags) or  
46 if the waste is a Labpack or discarded laboratory reagent  
47 container, the following steps will be performed:  
48

1 a. Visually verify the waste. Examine each selected  
2 container to assure that it matches the data provided  
3 on the CE/RR form(s) provided to document the waste.  
4 Labpacks and combination packages must be removed from  
5 the outer container. If the waste matches the  
6 description specified in its documentation,  
7 confirmation of designation is complete and the waste  
8 may be accepted. If not, the waste is rejected and  
9 returned to the generating unit, and the generating  
10 unit revises and resubmits the documentation to  
11 reflect the actual contents. If necessary, the waste  
12 shall be re-designated utilizing the designation  
13 methods identified in WAC 173-303-070 through 173-303-  
14 100."

15  
16 III.2.B.e. Page 3-10, line 32. The following is added to the end of  
17 this section: "Wastes must be analyzed using the TCLP in  
18 accordance with Appendix II of 40 CFR 261, as amended, in  
19 order to provide sufficient information for proper  
20 management and for decisions regarding Land Disposal  
21 Restrictions pursuant to 40 CFR 268."

22  
23 III.2.B.f. Page 3-16, lines 24-28. Replace the existing language with:  
24 "At least five percent (5%) of the waste containers received  
25 at 305-B during a Federal fiscal year (October 1 through  
26 September 30) will undergo confirmation of designation  
27 pursuant to Sections 3.2.2 and 3.2.3 (Test Methods and  
28 Sampling Methods, respectively). The number of containers  
29 needed to meet the 5% requirement is 5% of the average of  
30 containers for the previous three months. For example if  
31 200 containers are received in January, 180 in February, and  
32 220 in March then 10 containers of received waste must  
33 undergo confirmation of designation in April. All  
34 generating units which ship more than twenty (20) containers  
35 through 305-B in a fiscal year will have at least one (1)  
36 container sampled and analyzed. Containers for which there  
37 is insufficient process knowledge or analytical information  
38 to designate without sampling and analysis may not be  
39 counted as part of the five percent requirement unless there  
40 is additional confirmation of designation independent of the  
41 generator designation. The generating unit's staff shall  
42 not select the waste containers to be sampled and analyzed  
43 other than identifying containers for which insufficient  
44 information is available to designate.

45  
46 Containers of the following are exempt from the confirmation  
47 calculation above: Laboratory reagents or other unused  
48 products such as paint, lubricants, solvent, or cleaning  
49 products, whether received for redistribution, recycling, or

- 1 as waste. To qualify for this exemption, such materials  
2 must be received at 305-B in their original containers."  
3  
4 III.2.B.g. Page 4-1, line 30. "and -630" is added after "WAC 173-303-  
5 190" in this sentence  
6  
7 III.2.B.h. Page 4-1, line 45. Added to the end of this section is the  
8 following sentence: "Containers utilized for off-site  
9 shipment shall also comply with WAC 173-303-190(2) and (3).  
10 305-B personnel shall comply with WAC 173-303-190(4)."  
11  
12 III.2.B.i. Page 4-24, line 21. The following paragraph is added to the  
13 end of Section 4.1 1.8.: "Verification sampling shall be  
14 carried out in accordance with Section 11.1.4.4. (Methods  
15 for sampling and testing to demonstrate success of  
16 decontamination)."  
17  
18 III.2.B.j. Page 7-3, line 1. This line is deleted.  
19  
20 III.2.B.k. Page 7-3, line 23. The following is added to the end of  
21 this Section: "The names and work phone numbers of the 305-B  
22 Emergency Coordinator(s) shall be submitted to Ecology and  
23 the Agency and kept at the Single Point contact and with the  
24 contingency plan at the 305-B Unit."  
25  
26 III.2.B.l. Page 7-6, line 2. The following is added to this Section:  
27 "Samples of spilled or released material(s) shall be taken  
28 in accordance with the WAP found in Section 3.2."  
29  
30 III.2.B.m. Page 7-13, line 46. Added to the end of the second to last  
31 sentence is the following: "pursuant to WAC 173-303-  
32 360(2)(j)."  
33  
34 III.2.B.n. Page 7-23, line 35. The following bullet is added to this  
35 Section: "All local police and fire departments, hospitals,  
36 and State and local response teams that may be called upon  
37 to provide emergency services."  
38  
39 III.2.B.o. Page 8-2, line 23. The "I"s are replaced by "B"s on this  
40 line, changing the training frequency for Hazardous Waste  
41 Shipment Certification from initially to biennially.  
42  
43 III.2.B.p. Page 8-2, line 30. A "B4" is inserted replacing the "N"  
44 under the vertical column for TS (Waste Management  
45 Technicians and Technical Specialists), requiring that they  
46 receive Radioactive Material Shipping Representative  
47 training biennially. Footnote 4 shall be changed to read:  
48 "Required for staff directly responsible for radioactive  
49 material shipments."

- 1 III.2.B.q. Page 11-1, line 44. Added to the end of this Section is the  
2 following: "Spill reports and logs shall be consulted to  
3 determine potential areas of contamination."  
4
- 5 III.2.B.r. Page 11-3, line 51. Prior to the words "will also be  
6 performed.", the following is added: "or areas of documented  
7 spills or releases."  
8
- 9 III.2.B.s. Page 11-8, lines 4 and 7. The following language is  
10 inserted after the words Low-Level Radioactive on line 4 and  
11 Nonregulated on line 7, respectively, replacing the current  
12 language: "Shall be handled in accordance with the Liquid  
13 Effluent Consent Order (No. DE 91NM-177) and Milestone M-17  
14 of the Hanford Federal Facility Agreement and Consent  
15 Order "  
16
- 17 III.2.B.t. Page 11-8, line 25. Prior to the words "...will also be  
18 performed", the following is added: "or areas of documented  
19 spills or releases".  
20
- 21 III.2.B.u. Page 11-13, line 39. The words "annually during closure  
22 activities" are deleted from the end of this sentence and  
23 replaced with: "in accordance with Condition II.H.1." of  
24 this Permit.  
25
- 26 III.2.B.v. Page 12-1, lines 7-9. The sentence beginning "Many of the  
27 records..." is deleted.  
28
- 29 III.2.B.w. [Reserved]  
30
- 31 III.2.B.x. Page 12-10, line 37. Added to the end of this sentence is  
32 the following: "and Condition I.E.15. of the Facility Wide  
33 Permit."  
34
- 35 III.2.B.y. [Reserved]  
36
- 37 III.2.B.z. [Reserved]  
38
- 39 III.2.B.aa. Page 13-2, line 42. This sentence is deleted and replaced  
40 with the following: "Wastes containing polychlorinated  
41 biphenyls (PCB), which are subject to regulation under the  
42 Toxic Substances Control Act (TSCA), are stored in the 305-B  
43 Storage Unit. These wastes are stored for periods less than  
44 one (1) year before shipment to a disposal facility  
45 permitted under TSCA. Storage of PCB wastes in 305-B for  
46 periods less than one (1) year will continue to be done in  
47 compliance with applicable TSCA regulations in 40 CFR Part  
48 761."  
49

- 1 III.2.B.bb. Part A Application Page 3Q of 5, lines 10 and 11. Waste  
2 Code WC01 shall be deleted and the estimated annual volume  
3 of Waste Code WC02 shall be changed to 2,000 kilograms.  
4
- 5 III.2.B.cc. Page 2-15, lines 30 and 31. The term "1988" shall be  
6 changed to "1991."  
7
- 8 III.2.B.dd. Page 4-17, lines 23-36. The text on these lines shall be  
9 deleted and replaced with the following: "4.1.1.6.11 RMW  
10 Storage Area. Radioactive mixed waste that is not flammable  
11 per UFC (i.e., flash point above 100 degrees F) is stored in  
12 a special area in the basement of 305-B. For additional  
13 segregation capability, there are six small chemical storage  
14 cabinets and four 5 ft. X 5 ft. stainless steel "container  
15 pans" with 12 in. sides. The containment pans are mounted  
16 to the floor or wall of the cell to provide segregated  
17 storage for potentially incompatible mixed waste streams.  
18 Drums stored in this area are stored on pallets to prevent  
19 potential contact with spilled waste in containment during  
20 an emergency. A diagram of this area is provided in Figure  
21 4-9."  
22
- 23 In normal use, the storage capacity of this area is limited  
24 by the radionuclide limits imposed by the DOE for "low  
25 inventory facilities." These limitations are defined in  
26 DOE-STD-1027-92, Hazard Characterization and Accident  
27 Analysis Techniques for Compliance with DOE Order 5480.23,  
28 Nuclear Safety Analysis Reports, and are included in the  
29 radiation work permit for the mixed waste storage area."  
30
- 31 III.2.B.ee. Page 6-1, lines 46-52. The paragraph beginning with the  
32 word "Access" shall be deleted.  
33
- 34 III.2.B.ff. Page 6-3, lines 15-18. The first two sentences of this  
35 paragraph shall be deleted.  
36
- 37 III.2.B.gg. Page 6-16, lines 15-19. The first five bullets shall be  
38 deleted and replaced with the following: "• 6 sets of  
39 chemically resistant suits, aprons, boots, and gloves."  
40
- 41 III.2.B.hh. Page 7-17, lines 5-9. The first five bullets shall be  
42 deleted and replaced with the following: "• 6 sets of  
43 chemically resistant suits, aprons, boots, and gloves."  
44
- 45 III.2.B.ii. Page 8-3, line 24. The following shall be added to the  
46 text: "Equivalent training may be taken in place of the  
47 training identified in Figure 8-1 with approval from the  
48 305-B Unit Operating Supervisor or the Waste Management  
49 Section Manager. Documentation of the training

Permit Number: WA7890008967  
Revision Number 1  
Expiration Date: September 27, 2004  
Page 70 of 90

1  
2  
3  
4  
5  
6  
7  
8  
9  
10

substitution will be placed in the operating record (within seven (7) days after the training was received) accompanied by a narrative explanation, and the date of the training. The documentation shall be made available to the Department or EPA during inspections for assessment. If the Department or EPA determines that the training substitution was not equivalent to the original, the original training will be taken or an acceptable substitution will be found."

Permit Number: WA7890008967  
Revision Number 1  
Expiration Date: September 27, 2004  
Page 71 of 90

**PART IV - CORRECTIVE ACTIONS FOR PAST PRACTICES**

1  
2  
3  
4 The HSWA Permit is issued by the Agency in conjunction with  
5 this Permit. Upon delegation of the Corrective Action  
6 requirements of the HSWA by the Agency to the Department,  
7 the Permit shall be modified to incorporate the specific  
8 requirements of the HSWA Permit into this Permit. This  
9 modification shall be considered a Class 3 modification in  
10 accordance with Condition I.C.3. Until this modification is  
11 complete, compliance with the terms of the referenced  
12 provisions, shall be deemed as compliance with WAC 173-303-  
13 646.

PART V - UNIT-SPECIFIC CONDITIONS FOR UNITS UNDERGOING CLOSURE

CHAPTER 1

**183-H Solar Evaporation Basin**

The 183-H Solar Evaporation Basins (Basins) comprise an inactive TSD unit that is currently undergoing permanent closure activities. This TSD unit was operated as an evaporation treatment unit for dangerous wastes. This Chapter sets forth the closure requirements for this TSD unit.

V.1.A. COMPLIANCE WITH APPROVED CLOSURE PLAN

The Permittees shall comply with all requirements set forth in the *183-H Solar Evaporation Basins Closure Plan/Postclosure Plan* (Plan), found in Attachment 11, including the amendments specified in Condition V.1.B. Enforceable portions of the Plan are listed below (All subsections, figures, and tables included in these portions are also enforceable unless stated otherwise):

Part A Application

- Section I. General Closure Requirements, Introduction  
Pages I-1 through I-6)
- Section I.A-1. Minimize Need for Post-Closure Maintenance and Controls
- Section I.A-2. Minimize Post-Closure Escape of Dangerous Waste
- Section I.B. Content of Closure Plan
- Section I.C. Certification of Closure, Survey Plat, Notice in Deed, and Financial Requirements
- Section II.B-1. Preliminary Cover Design
- Section III.A-1. Inspection Plan
- Section III.A-2g. Monitoring Plan Proposed to be Conducted Until Issuance of Final Status Post-Closure Permit
- Section III.A-3. Maintenance Plan
- Section III.E. Personnel Training

1	Section III.C.	Procedures to Prevent Hazards
2		
3	Section III.D.	Post-Closure Contact
4		
5	Section III.E.	Amendment of Post-Closure Plan
6		
7	Section III.F.	Certification of Completion of Post-
8		Closure Care
9		
10	Appendix A	Topographical Maps
11		
12	Appendix L	Procedures for Sample Collection, Chain of
13		Custody, and Field Measurements
14		
15	Appendix M	Analytical Methods and Quality Control
16		Procedures
17		
18	Appendix N	Personnel Training for Closure Activities
19		

20 V.1.B. AMENDMENTS TO THE APPROVED CLOSURE PLAN

- 21
- 22 V.1.B.a. Page I-1, lines 9-12. The sentence found here is deleted  
23 and replaced with the following: "Additionally, the 183-H  
24 Basins will be closed in accordance with the most current  
25 version of all applicable environmental regulations and laws  
26 as well as the FFACO. New or modified regulations and laws  
27 may require closure activities and/or the closure plan to be  
28 modified."  
29
- 30 V.1.B.b. Page I-108, line 46. The reference to WAC 173-303-700 is  
31 deleted.  
32
- 33 V.1.B.c. Page I-150, line 53. The date of "October 1991" is deleted  
34 and replaced with "the first October after the effective  
35 date of this Permit".  
36
- 37 V.1.B.d. Page III-77, line 5. The phone number (509) 376-5411 is  
38 changed to (509) 375-4647.  
39
- 40 V.1.B.e. A copy of any Unusual Occurrence Report or Off Normal  
41 Occurrence Report issued after approval of the Plan which is  
42 directly related to Basin closure shall be provided to the  
43 Department's Basin unit manager within seven (7) days after  
44 issuance. This does not relieve the Permittees from any  
45 other reporting requirements specified in Part I or II of  
46 this Permit.  
47

- 1 V.1.B.f. Annual closure cost estimates shall be provided to the  
2 Department as described in Section I.C.4. of this closure  
3 plan and Condition II.H.1 of this Permit.  
4
- 5 V.1.B.g. A written notification that closure has begun and will be  
6 conducted in accordance with the Plan, including these  
7 conditions to the Plan, shall be submitted to the Department  
8 within 30 days after the Plan is approved through issuance  
9 of this Permit  
10
- 11 V.1.B.h. Concrete sampling and analysis activities (basin and  
12 background sampling) shall be conducted as described within  
13 the Plan and as augmented by the Decommissioning Work Plan  
14 (DWP) entitled "Concrete Sampling - 183-H Solar Evaporation  
15 Basins" (DWP-H-080-00001) as found in Attachment 12 of this  
16 Permit.  
17
- 18 V.1.B.i. Soil sampling and analyses activities (including Phases I  
19 and II, berm and background sampling) shall be conducted as  
20 described within the Plan and as augmented by DWP-H-080-  
21 00005 entitled "Core Drill Sampling - 183-H Solar  
22 Evaporation Basins (Phase I)"; WHC-SD-EN-AP-056 entitled  
23 "183-H Solar Evaporation Basins Vadose Zone Sampling Plan";  
24 and DWP-H-026-00003 entitled "Berm Removal For 183-H Solar  
25 Evaporation Basins" as found in Attachments 13, 14, and 15,  
26 respectively. of this Permit.  
27
- 28 V.1.B.j. The results of Basin concrete sampling (including background  
29 sampling) shall be received by the Department within 180  
30 days of the effective date of this Permit. This submittal  
31 shall include the raw analytical data, a summary of  
32 analytical results, a data validation package, and a  
33 narrative summary with conclusions.  
34
- 35 V.1.B.k. The results of Basin soil sampling (including Phases I and  
36 II, berm and background sampling) shall be received by the  
37 Department within 180 days of the effective date of this  
38 Permit. This submittal shall include the raw analytical  
39 data, a summary of analytical results, a data validation  
40 package, and a narrative summary with conclusions.  
41
- 42 V.1.B.l. The Department shall be provided, for review and approval, a  
43 sampling plan and the date of sampling for any sampling  
44 event not addressed above which provides data used to  
45 support Basin closure activities at least 30 days prior to  
46 initiating actual sampling activities. This condition  
47 applies to, but is not limited to, equipment and non-  
48 concrete structural sampling and verification sampling. The  
49 results of this sampling shall be submitted to the

1 Department. These submittals shall include the raw  
2 analytical data, a summary of analytical results, a data  
3 validation package and a narrative summary with  
4 conclusions.  
5

6 V.1.B.m The Permittees shall submit to the Department, for approval,  
7 a notification indicating which closure option identified in  
8 Condition II.K. of this Permit will be utilized for the  
9 Basins. This notification shall be submitted at least 60  
10 days prior to implementation of the option and shall be  
11 accompanied by the technical and regulatory justification  
12 for choosing the closure option along with any supporting  
13 documentation including, if necessary, the result of  
14 sampling per Conditions V.1.B.h. through V.1.B.l. This  
15 notification shall also be accompanied by a revised Figure  
16 I.B-20 of the Plan indicating a new closure schedule;  
17 however, the date of final closure shall not exceed eighteen  
18 (18) months after the effective date of this Permit.  
19 Implementation of the option cannot commence until receipt  
20 of the Department's written approval for the closure option.

21 V.1.B.n Regardless of the option chosen from Condition II.K., the  
22 Permittees and the independent, registered, professional  
23 engineer certifications of closure shall be prepared and  
24 submitted to the Department within 60 days of closure as  
25 described in Section I.C-1. of the closure plan.  
26

27 V.1.B.o If a landfill closure is chosen, the definitive design  
28 documents, construction specifications, construction  
29 drawings, and construction quality assurance plans for any  
30 engineered system (including a final cover system) shall be  
31 submitted to the Department pursuant to Condition I.C.3.  
32

33 V.1.B.p. After review of the documents identified in Condition  
34 V.1.B.o., the Department may issue a unit-specific  
35 Construction Inspection Plan (CIP). If the Department  
36 chooses to issue a CIP, the Department shall be provided  
37 with all submittals and notifications required by the CIP  
38 and within the time period identified in the CIP.  
39

40 V.1.B.q. If a landfill closure is chosen, notification of any of the  
41 following occurrences shall be provided to the Department  
42 within 30 days of observance until a postclosure permit is  
43 issued: settlement/sedimentation in the final cover greater  
44 than one (1) foot; actual vegetative cover canopy on the  
45 final cover less than 50 percent (50%) of a typical Hanford  
46 cover canopy six (6) months after closure; erosion of the  
47 final cover greater than six (6) inches; tampering or damage  
48 to wells or well heads. The notification must include the

- 1 extent and cause of the occurrence as well as actions taken  
2 (or to be taken) to mitigate the occurrence.  
3
- 4 V.1.B.r. If a modified closure is chosen, the Permittees shall  
5 request any reduction of landfill requirements identified in  
6 the Plan pursuant to Condition I.C.3. This request shall be  
7 based upon the quantity and concentration of contamination  
8 which will remain in place, and shall meet the requirements  
9 of Condition II.K.3.  
10
- 11 V.1.B.s If a modified closure or landfill closure is chosen, a  
12 survey plat shall be prepared and submitted to the  
13 Department, and the Benton County Planning Department no  
14 later than 60 days after certification of closure as  
15 described in Section I.C-2. of the Plan.  
16
- 17 V.1.B.t If a modified closure or a landfill closure is chosen, a  
18 notice on the deed to the property shall be prepared and  
19 submitted to the Auditor of Benton County no later than 60  
20 days after certification of closure as described in Section  
21 I.C-3. of the Plan. No later than 30 days after submitting  
22 this notice, a certification signed by the Permittees must  
23 be submitted to the Department that the notification has  
24 been recorded along with a copy of the notice itself.  
25
- 26 V.1.B.u. If a modified closure or landfill closure is chosen, a  
27 revision to the "Final Status Postclosure Permit  
28 Application, 183-H Solar Evaporation Basins" (June 1988),  
29 shall be submitted pursuant to Condition I.C.3. within 12  
30 months of the Department's approval of the closure option.  
31
- 32 V.1.B.v Quarterly and annual ground water monitoring reports for the  
33 wells specified in the Plan shall continue to be submitted  
34 to the Department until clean closure is acknowledged by the  
35 Department in writing or as specified otherwise in a Basin  
36 postclosure permit  
37  
38

CHAPTER 2

**300 Area Solvent Evaporator**

The 300 Area Solvent Evaporator (300 ASE) is an inactive treatment unit which is currently undergoing permanent closure activities. This TSD unit was operated as an evaporation treatment unit for dangerous wastes. This Chapter sets forth the closure requirements for this TSD unit.

V.2.A. COMPLIANCE WITH THE APPROVED CLOSURE PLAN

The Permittees shall comply with all the requirements set forth in the 300 Area Solvent Evaporator Closure Plan (Plan), as found in Attachment 16, including the amendments specified in Condition V.2.B. Enforceable portions of the Plan are listed below (All subsections, figures, and tables included in these portions are also enforceable unless stated otherwise):

Part A Application

Section 1.1.1 Location and General Description

Section 1.1.2 The 300-Area Solvent Evaporator

Section 1.2 Security Information

Chapter 2.0 Closure Performance Activities

Chapter 3.0 Description of Closure Activities

Chapter 4.0 Certification of Closure

Chapter 5.0 Post-closure

Chapter 6.0 Procedures to Prevent Hazards

Chapter 7.0 Contingency Plan

Chapter 8.0 Personnel Training

Section 9.8 Other Requirements

Appendix E Soil and Concrete Sampling and Analysis Plan for the 300 Area Solvent Evaporator

1 V.2.B. AMENDMENTS TO THE APPROVED CLOSURE PLAN

2  
3 V.2.B.a. A written notification that closure has begun and will be  
4 conducted in accordance with the Plan, including these  
5 Conditions to the Plan, shall be submitted to the Department  
6 within 30 days after the Plan is approved through issuance  
7 of this Permit.  
8

9 V.2.B.b. The results of all sampling required by this Plan shall be  
10 provided to the Department. This submittal shall include  
11 the raw analytical data, a summary of analytical results, a  
12 data validation package, and a narrative summary with  
13 conclusions.  
14

15 V.2.B.c. The Department shall be provided, for review and approval, a  
16 sampling plan and the date of sampling for any sampling  
17 event not addressed in the Plan which provides data used to  
18 support 300 ASE closure activities at least 30 days prior to  
19 initiating actual sampling activities. The results of this  
20 sampling shall be submitted to the Department. These  
21 submittals shall include the raw analytical data, a summary  
22 of analytical results, a data validation package, and a  
23 narrative summary with conclusions.  
24

25 V.2.B.d. Annual cost estimates shall be provided to the Department as  
26 described in Section 5.2. of this closure plan and Condition  
27 II.H.1. of this Permit. At Page 5-2, line 6, delete  
28 "October 1993", and replace it with "the first October after  
29 the effective date of this Permit."  
30

31 V.2.B.e. The Permittees shall notify the Department, in writing, if  
32 the initial action levels in Table 3-2 of the Plan are  
33 exceeded. The notification shall either include a request  
34 for the Department's approval of alternative action levels  
35 or identify the interim measures to be taken at the 300 ASE  
36 until closure activities are performed in conjunction with  
37 the 300-FF-2 Operable Unit.  
38

39 V.2.B.f. The Permittees and the independent, registered, professional  
40 engineer certifications of closure shall be prepared and  
41 submitted to the Department by registered mail within 60  
42 days of closure as described in Section 4.0. of the Plan.  
43 The Permittees shall continue to address the 300 ASE as a  
44 dangerous waste management unit until receipt of the  
45 Department's written notification that the 300 ASE is  
46 accepted as clean closed.  
47

48 V.2.B.g. The Permittees shall complete 300 ASE closure activities  
49 within 180 days after the effective date of this Permit.

CHAPTER 3

**2727-S Nonradioactive Dangerous Waste Storage Facility**

The 2727-S Nonradioactive Dangerous Waste Storage Facility (2727-S) is an inactive storage unit which is currently undergoing permanent closure activities. This TSD unit was operated as a storage unit for dangerous wastes. This Chapter sets forth the closure requirements for this TSD unit.

V.3.A. COMPLIANCE WITH THE APPROVED CLOSURE PLAN

The Permittees shall comply with all the requirements set forth in the 2727-S Nonradioactive Dangerous Waste Storage Facility Closure Plan (Plan), as found in Attachment 17, including the amendments specified in Condition V.3.B. Enforceable portions of the Plan are listed below (All subsections, figures, and tables included in these portions are also enforceable unless stated otherwise):

Part A Application

Section 1.1 Location Information

Section 1.2 Security

Section 1.3 Facility Description and Operations

Chapter 2.0 Closure Performance Standard

Chapter 4.0 Closure Activities

Chapter 5.0 Contingency Plan

Chapter 6.0 Training Requirements

Chapter 7.0 Closure Plan Schedule

Appendix F Sampling and Handling Procedures

Appendix G Quality Assurance Project Plan

Appendix H Personnel Training

Appendix I Certification Statements

1 V.3.B. AMENDMENTS TO THE APPROVED CLOSURE PLAN

2  
3 V.3.B.a. A written notification that closure has begun and will be  
4 conducted in accordance with the Plan, including these  
5 Conditions to the Plan, shall be submitted to the Department  
6 within 30 days after the Plan is approved through issuance  
7 of this Permit.  
8

9 V.3.B.b. The results of all sampling required by this Plan shall be  
10 provided to the Department. This submittal shall include  
11 the raw analytical data, a summary of analytical results, a  
12 data validation package, and a narrative summary with  
13 conclusions.  
14

15 V.3.B.c. The Department shall be provided, for review and approval, a  
16 sampling plan and the date of sampling for any sampling  
17 event not addressed in the Plan which provides data used to  
18 support 2727-S closure activities at least 30 days prior to  
19 initiating actual sampling activities. The results of this  
20 sampling shall be submitted to the Department. These  
21 submittals shall include the raw analytical data, a summary  
22 of analytical results, a data validation package, and a  
23 narrative summary with conclusions.  
24

25 V.3.B.d. Annual cost estimates shall be provided to the Department as  
26 described in Section 4.6. of this closure plan and Condition  
27 II.H.1. of this Permit.  
28

29 V.3.B.e. The Permittees shall notify the Department, in writing, if  
30 clean closure concentrations cannot be achieved. The  
31 notification shall include a justification for not  
32 completing clean closure requirements and a plan to address  
33 dangerous waste postclosure requirements at 2727-S.  
34

35 V.3.B.f. The Permittees and the independent, registered, professional  
36 engineer certifications of closure shall be prepared and  
37 submitted to the Department by registered mail within 60  
38 days of closure as described in Section 4.7 of the Plan.  
39 The Permittees shall continue to address 2727-S as a  
40 dangerous waste management unit until receipt of the  
41 Department's written notification that 2727-S is accepted as  
42 clean closed.  
43

44 V.3.B.g. The Permittees shall complete 2727-S closure activities  
45 within 180 days after the effective date of this Permit.  
46  
47  
48  
49

CHAPTER 4

**Simulated High Level Waste Slurry Treatment and Storage Unit**

The Simulated High Level Waste Slurry Treatment and Storage Unit (SHLWS) is an inactive storage and treatment unit which is currently undergoing permanent closure activities. This TSD unit was operated as a storage and treatment unit for simulated slurry as a test operation in connection with the grout project. This Chapter sets forth the closure requirements for this TSD unit.

V.4.A. COMPLIANCE WITH APPROVED CLOSURE PLAN

The Permittees shall comply with all the requirements set forth in the *SHLWS Closure Plan* (Plan), as found in Attachment 19, including the amendments specified in Condition V.4.B. Enforceable portions of the Plan are listed below (all subsections, figures, and tables included in these portions are also enforceable unless stated otherwise):

Section 1.2	Part A Permit Application
Section 2.3	Description of the SHLWS T/S Unit/Physiography
Section 2.4	Location Information
Section 3.1	Characteristics of Untreated Waste
Section 3.2	Characteristics of Treated Waste
Section 6.1	General Closure Requirements
Section 6.2	General Post-Closure Requirements
Section 6.3	Closure of Chemical, Physical, and Biological Treatment Units
Appendix A	Sampling and Analysis Plan
Appendix B	Quality Assurance Project Plan

V.4.B. AMENDMENTS TO THE APPROVED CLOSURE PLAN

- V.4.B.a. A written notification stating closure has been and will continue to be conducted in accordance with the Plan, including the conditions of the Plan, shall be submitted to the Department within 30 days after the effective date of Revision 1 to this Permit.
- V.4.B.b. The Permittees shall notify the Department, in writing, if at any time it is determined the clean closure levels specified in this plan are exceeded.

- 1 V.4.B.c. The Permittees and the independent, registered, professional engineer  
2 certification of closure shall be prepared and submitted to the  
3 Department by registered mail within 60 days of closure as described  
4 in the Plan. The Permittees shall continue to address the unit as a  
5 dangerous waste management unit until receipt of the Department's  
6 written notification stating the unit is accepted as clean closed.  
7
- 8 V.4.B.d The Permittees shall complete SHLWS closure activities 180 days after  
9 the effective date of Revision 1 to this Permit.  
10
- 11 V.4.B.e Any remaining solid waste at the unit, generated during soil sampling  
12 and decontamination activities, shall be designated according to the  
13 analytical results of these activities and managed accordingly. The  
14 Department shall be informed in writing of the final disposition of  
15 the waste.  
16  
17  
18

CHAPTER 5

**218-E-8 Borrow Pit Demolition Site**

The 218-E-8 Borrow Pit Demolition Site (218 BPDS) is an inactive treatment unit which is currently undergoing permanent closure activities. This TSD unit was operated as an open burning/open detonation unit for dangerous wastes. This Chapter sets forth the closure requirements for this TSD unit.

V.5.A. COMPLIANCE WITH APPROVED CLOSURE PLAN

The permittees shall comply with all the requirements set forth in the *218-E-8 Borrow Pit Demolition Site Closure Plan (Plan)*, as found in Attachment 20, including the amendments specified in condition V.5.B. Enforceable portions of the Plan are listed below (all subsections, figures, and tables included in these portions are also enforceable unless stated otherwise):

Part A Application

Section 2.2.2	Facility Description and General Provisions
Section 2.2.3	Description of 218-E-8 Borrow Pit Demolition Site
Section 2.4	Security Information
Chapter 3.0	Process Information
Chapter 4.0	Waste Characteristics
Chapter 5.0	Groundwater Monitoring
Chapter 6.0	Closure Strategy and Performance Standards
Chapter 7.0	Closure Activities
Chapter 8.0	Postclosure Plan
Appendix 4A	Toxicity Data
Appendix 7A	Quality Assurance Project Plan for Soil Sampling and Analysis for the 218-E-8 Borrow Pit Demolition Site
Appendix 7B	Training Course Descriptions
Appendix 7C	Sampling and Analysis Plan

1 V.5.B. AMENDMENTS TO THE APPROVED CLOSURE PLAN

2  
3 V.5.B.a. A written notification stating closure has begun and will be  
4 conducted in accordance with the Plan, including these  
5 additional conditions to the Plan, shall be submitted to the  
6 Department within 30 days after the effective date of Revision  
7 1 to this Permit.  
8

9 V.5.B.b. The results of all sampling required by this Plan shall be  
10 provided to the Department. This submittal shall include the  
11 raw analytical data, a summary of analytical results, a data  
12 validation package and a narrative summary with conclusions.  
13

14 V.5.B.c. The Department shall be provided, for review and approval, a  
15 sampling plan and the date of sampling for any sampling event  
16 not addressed in the Plan which provides data used to support  
17 218 BPDS closure activities at least 30 days prior to  
18 initiating actual sampling activities. The results of this  
19 sampling shall be submitted to the Department. These  
20 submittals shall include the raw analytical data, a summary of  
21 analytical results, a data validation package, and a narrative  
22 summary with conclusions.  
23

24 V.5.B.d. The Permittees shall notify the Department, in writing, if the  
25 action levels as defined in Section 6.1 of the Plan are  
26 exceeded. The notification shall either include a request to  
27 develop a phase two investigation to determine further sampling  
28 activities or remedial actions, or identify the interim  
29 measures to be taken at the 218 BPDS until closure activities  
30 are performed in conjunction with the 200-PO-6 Operable Unit.  
31

32 V.5.B.e. The Permittees and the independent, registered, professional  
33 engineer certification of closure shall be prepared and  
34 submitted to the Department by registered mail within 60 days  
35 of closure, as described in Section 6.3.2 of the Plan. The  
36 Permittees shall continue to address the 218 BPDS as a  
37 dangerous waste management unit until receipt of the  
38 Department's written notification stating the 218 BPDS is  
39 accepted as clean closed.  
40

41 V.5.B.f. The Permittees shall complete 218 BPDS closure activities  
42 within 180 days after the effective date of Revision 1 to this  
43 Permit.

CHAPTER 6

**200 West Area Ash Pit Demolition Site**

The 200 West Area Ash Pit Demolition Site (200 APDS) is an inactive treatment unit which is currently undergoing permanent closure activities. This TSD unit was operated as an open burning/open detonation unit for dangerous wastes. This Chapter sets forth the closure requirements for this TSD unit.

V.6.A. COMPLIANCE WITH APPROVED CLOSURE PLAN

The permittees shall comply with all the requirements set forth in the *218-E 8 Borrow Pit Demolition Site Closure Plan (Plan)*, as found in Attachment 21, including the amendments specified in condition V.5.B. Enforceable portions of the Plan are listed below (all subsections, figures, and tables included in these portions are also enforceable unless stated otherwise):

Part A Application

- Section 2.2.1 Facility Description and General Provisions
- Section 2.2.1 Description of 200 West Area Ash Pit Demolition Site
- Section 2.4 Security Information
- Chapter 3.0 Process Information
- Chapter 4.0 Waste Characteristics
- Chapter 5.0 Groundwater Monitoring
- Chapter 6.0 Closure Strategy and Performance Standards
- Chapter 7.0 Closure Activities
- Chapter 8.0 Postclosure Plan
- Appendix 4A Toxicity Data
- Appendix 7A Quality Assurance Project Plan for Soil Sampling and Analysis for the 200 West Area Ash Pit Demolition Site
- Appendix 7B Training Course Descriptions
- Appendix 7C Sampling and Analysis Plan

- 1 V.6.B. AMENDMENTS TO THE APPROVED CLOSURE PLAN  
2  
3 V.6.B.a A written notification stating closure has begun and will be  
4 conducted in accordance with the Plan, including these  
5 additional conditions to the Plan, shall be submitted to the  
6 Department within 30 days after the effective date of Revision  
7 1 to this Permit.  
8  
9 V.6.B.b. The results of all sampling required by this Plan shall be  
10 provided to the Department. This submittal shall include the  
11 raw analytical data, a summary of analytical results, a data  
12 validation package, and a narrative summary with conclusions.  
13  
14 V.6.B.c. The Department shall be provided, for review and approval, a  
15 sampling plan and the date of sampling for any sampling event  
16 not addressed in the Plan which provides data used to support  
17 200 APDS closure activities at least 30 days prior to  
18 initiating actual sampling activities. The results of this  
19 sampling shall be submitted to the Department. These  
20 submittals shall include the raw analytical data, a summary of  
21 analytical results, a data validation package, and a narrative  
22 summary with conclusions.  
23  
24 V.6.B.d. The Permittees shall notify the Department, in writing, if the  
25 action levels as defined in Section 6.1 of the Plan are  
26 exceeded. The notification shall either include a request to  
27 develop a phase two investigation to determine further sampling  
28 activities, or remedial actions or identify the interim  
29 measures to be taken at the 200 APDS until closure activities  
30 are performed in conjunction with the 200-SS-2 Operable Unit.  
31  
32 V.6.B.e The Permittees and the independent, registered, professional  
33 engineer certification of closure shall be prepared and  
34 submitted to the Department by registered mail within 60 days  
35 of closure, as described in Section 6.3.2 of the Plan. The  
36 Permittees shall continue to address the 200 APDS as a  
37 dangerous waste management unit until receipt of the  
38 Department's written notification stating the 200 APDS is  
39 accepted as clean closed.  
40  
41 V.6.B.f The Permittees shall complete 200 APDS closure activities  
42 within 180 days after the effective date of Revision 1 to this  
43 Permit.

CHAPTER 7

2101-M Pond

The 2101-M Pond is undergoing permanent closure activities. This unit was operated as a disposal unit for potentially dangerous waste. This chapter sets for the closure requirements for this TSD unit.

V.7.A. COMPLIANCE WITH APPROVED CLOSURE PLAN

The Permittees shall comply with all requirements set forth in the *2101-M Pond Closure Plan (Plan)*, found in Attachment 22, including the amendments specified in Condition V.7.B. Enforceable portions of the Plan are listed below (all subsections, figures, and tables included in these portions are also enforceable):

Appendix A-1	Part A Permit Application, Form 3
Section I-3	2101-M Pond Location and General Description
Section I-5	Security
Chapter A	Closure Performance Standards
Chapter B	Content of Closure Plan
Chapter C	Certification of Closure

V.7.B. AMENDMENTS TO THE APPROVED CLOSURE PLAN

V.7.B.a. A written notification stating closure has been and will continue to be conducted in accordance with the Plan, including these conditions of the Plan, shall be submitted to the Department within 30 days after the effective date of Revision 1 to this Permit.

V.7.B.b. The Permittees shall notify the Department, in writing, if at any time it is determined the clean closure levels specified in this plan are exceeded.

V.7.B.c. The Permittees and the independent, registered, professional engineer certification of closure shall be prepared and submitted to the Department by registered mail within 60 days of closure, as described in the Plan. The Permittees shall continue to address the unit as a dangerous waste management unit until receipt of the Departments written notification stating the unit is accepted as clean closed.

CHAPTER 8

216-B-3 Expansion Ponds

The 216-B-3 Expansion Ponds is undergoing permanent closure activities. This unit was operated as a treatment and disposal unit for dangerous waste. This chapter sets forth the closure requirements for this TSD unit.

V.8.A. COMPLIANCE WITH APPROVED CLOSURE PLAN

The Permittees shall comply with all requirements set forth in the 216-B-3 Expansion Ponds Closure Plan (Plan), found in Attachment 23, including the amendments specified in Condition V.8.B. Enforceable portions of the Plan are listed below (all subsection, figures, and tables included in these portions are also enforceable):

Part A Permit Application

Section 1.2	Closure Strategy
Chapter 2.0	Facility Description and Location Information
Chapter 5.0	Groundwater Monitoring
Chapter 6.0	Closure Performance Standards
Chapter 7.0	Closure Activities
Chapter 8.0	Postclosure Plan

V.8.B. AMENDMENTS TO THE APPROVED CLOSURE PLAN

- V.8.B.a. A written notification stating closure has been and will continue to be conducted in accordance with the Plan, including these condition of the Plan, shall be submitted to the Department within 30 days after the effective date of Revision 1 to this Permit.
- V.8.B.b. Groundwater monitoring will continue in accordance with B Pond System groundwater monitoring program. Quarterly and annual groundwater monitoring reports for the wells specified in the Plan shall continue to be submitted to the Department until closure of the 216-B-3 Main Pond is acknowledged by the Department in writing, or as specified otherwise in a postclosure permit.
- V.8.B.c. The Permittees shall notify the Department, in writing, if at any time it is determined the clean closure levels specified in this plan are exceeded.

Permit Number : WA7890008967  
Revision Number 1  
Expiration Date : September 27, 2004  
Page 90 of 90

- 1 V.8.B.d. The Permittees and the independent, registered, professional engineer  
2 certification of closure shall be prepared and submitted to the  
3 Department by registered mail with 60 days of closure as described in  
4 the Plan. The Permittees shall continue to address the unit as a  
5 dangerous waste management unit until receipt of the Department's  
6 written notification stating the unit is accepted as clean closed.  
7
- 8 V.8.B.e. The Permittees shall complete 216-B-3 expansion lobes closure  
9 activities within 180 days after the effective date of Revision 1 to  
10 this Permit.  
11

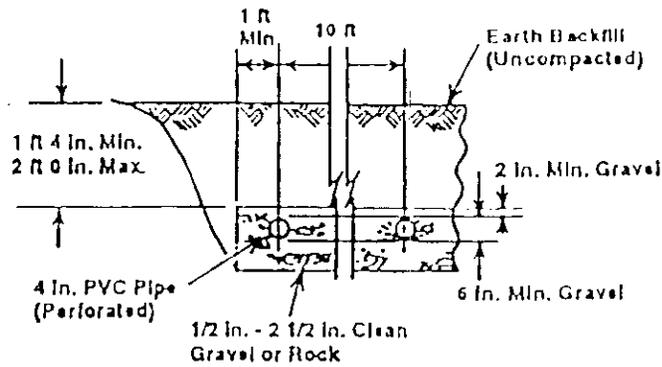
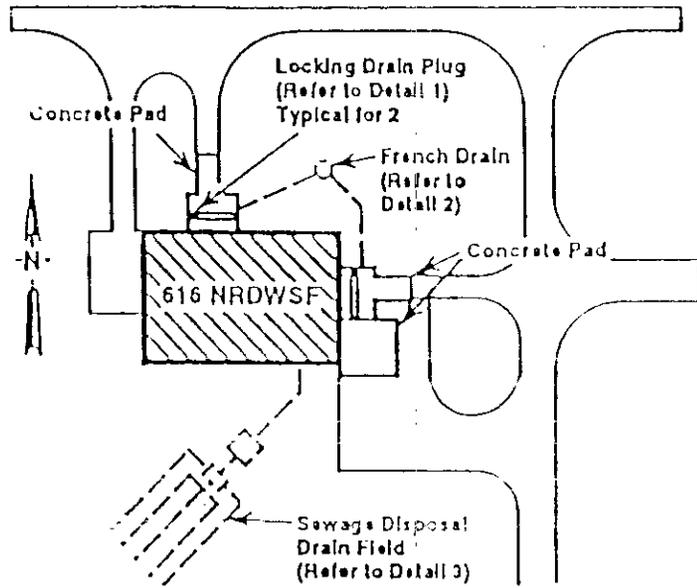
100-100000-100000  
100-100000-100000

Enclosure 1

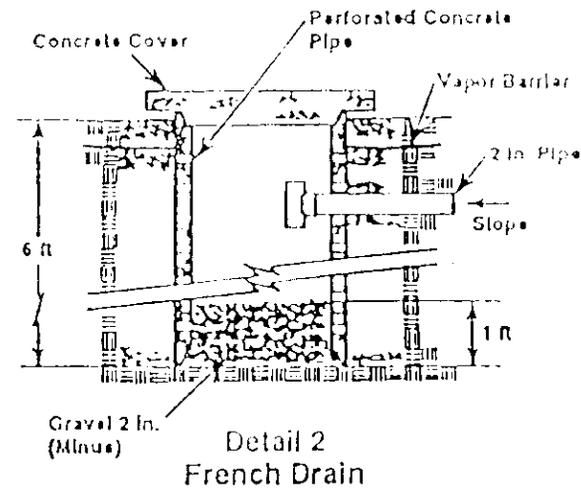
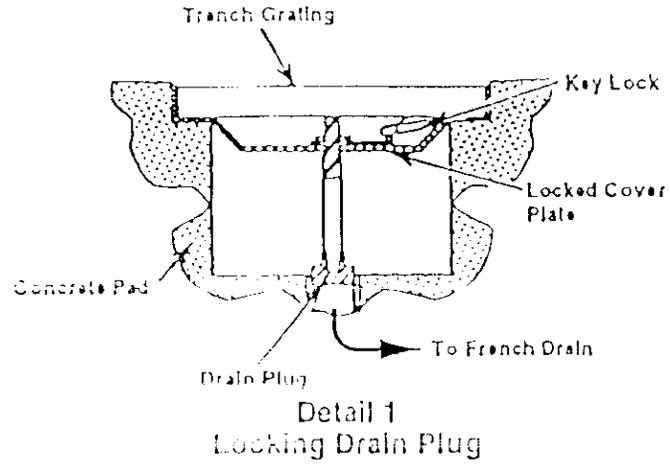
616 BUILDING STORAGE COMPATIBILITY CELLS			
STORAGE AREA	PRIMARY STORAGE	SECONDARY STORAGE	PROHIBITED STORAGE
<p><b>FLAMMABLE</b></p> <p>Class 1A</p> <p>FP &lt; 73°F (BP &lt; 100°F)</p>	Flammable Solids Flammable Liquids - 1A Flammable Gases Spontaneously Combustible Materials	Non-RCRA Waste Solids Non-RCRA Waste Liquids Combustible Liquids Flammable Liquids - 1B & 1C Non-Flammable Gases Flammable Gases Irritating Materials Class 9, Misc. Haz. Materials	Flammable Solids - DWW † Poison Gases Corrosive Materials (Acidic) Corrosive Materials (Caustic)
<p><b>FLAMMABLE</b></p> <p>Classes 1B &amp; 1C</p> <p>FP &lt; 73°F (BP ≥ 100°F) 73°F ≤ FP &lt; 100°F</p>	Flammable Solids Flammable Liquids - 1B & 1C Non-Flammable Gases Spontaneously Combustible Materials	Non-RCRA Waste Solids Non-RCRA Waste Liquids Combustible Liquids Irritating Materials Class 9, Misc. Haz. Materials	Flammable Solids - DWW † Flammable Liquids - 1A Poison Gases Corrosive Materials (Acidic) Corrosive Materials (Caustic)
<p><b>FLAMMABLE</b></p> <p>Class 1A - Cabinet</p> <p>Dangerous When Wet</p>	Flammable Solids - DWW †	Flammable Solids Flammable Liquids - 1A Flammable Liquids - 1B & 1C	Non-RCRA Waste Liquids Poison Gases Corrosive Materials (Acidic) Corrosive Materials (Caustic)
<p><b>FLAMMABLE</b></p> <p>Class 1B &amp; 1C - Cabinet</p> <p>Dangerous When Wet</p>	Flammable Solids - DWW †	Flammable Solids Flammable Liquids - 1B & 1C	Non-RCRA Waste Liquids Poison Gases Corrosive Materials (Acidic) Corrosive Materials (Caustic)
<p><b>COMBUSTIBLE</b></p> <p>Class 2, Class 3HA &amp; 3HB</p> <p>100°F ≤ FP &lt; 140°F 140°F ≤ FP &lt; 200°F FP ≥ 200°F</p>	Non-RCRA Waste Solids Non-RCRA Waste Liquids Combustible Liquids Poison Gases Poisonous Materials ‡ Irritating Materials Class 9, Misc. Haz. Materials	Flammable Solids Non-Flammable Gases	Flammable Solids - DWW † Flammable Liquids Flammable Gases Corrosive Materials (Acidic) Corrosive Materials (Caustic)
<p><b>OXIDIZER</b></p> <p>Promotes Combustion</p>	Non-RCRA Waste Solids Non-RCRA Waste Liquids Oxidizers Organic Peroxides Irritating Materials Class 9, Misc. Haz. Materials	Combustible Liquids Non-Flammable Gases Poisonous Materials ‡	Flammable Solids - DWW † Flammable Liquids Flammable Gases Poison Gases Corrosive Materials (Acidic) Corrosive Materials (Caustic)
<p><b>ACIDIC</b></p> <p>pH &lt; 7</p>	Non-RCRA Waste Solids Poisonous Materials ‡ Corrosive Materials (Acidic) Irritating Materials Class 9, Misc. Haz. Materials	Combustible Liquids Non-RCRA Waste Liquids Non-Flammable Gases	Flammable Solids - DWW † Flammable Solids Flammable Liquids Flammable Gases Poison Gases Oxidizers Organic Peroxides Corrosive Materials (Caustic)
<p><b>CAUSTIC</b></p> <p>pH &gt; 7</p>	Non-RCRA Waste Solids Corrosive Materials (Caustic)	Combustible Liquids Non-RCRA Waste Liquids Non-Flammable Gases Poisonous Materials ‡	Flammable Solids - DWW † Flammable Solids Flammable Liquids Flammable Gases Poison Gases Oxidizers Organic Peroxides Corrosive Materials (Acidic)
<p><b>Packaging &amp; Sampling Room</b></p>		Non-RCRA Waste Solids Non-RCRA Waste Liquids Combustible Liquids Irritating Materials Class 9, Misc. Haz. Materials	Flammable Solids - DWW † Flammable Liquids Flammable Gases Corrosive Materials (Acidic) Corrosive Materials (Caustic)
<p>* Use of the terms "FLAMMABLE" and "COMBUSTIBLE" in this table are as defined in the 1993 Edition of NFPA 30, not 49 CFR.</p> <p>† Class 4.3, Dangerous When Wet Material</p> <p>‡ Poisonous Liquids, Packing Group I, Zone A, may be stored in the COMBUSTIBLE cell only.</p>			

Figure 2-5. Waste Storage Compatibility by Hazard Class.

Figure 2-6. Diagram of French Drain.



Detail 3  
Sewage Disposal Drain Field



NRDSWF = Nonradioactive Dangerous Waste Storage Facility  
 PVC = Polyvinyl Chloride  
 Min. = Minimum  
 Max. = Maximum

Note: To convert feet to meters, multiply by 0.3048.  
 To convert inches to centimeters, multiply by 2.54.

39312012.7

11/11/11

Enclosure 2

CONTENTS

1  
2  
3  
4 3.0 WASTE CHARACTERISTICS [C] . . . . . 3-1  
5  
6 3.1 CHEMICAL, BIOLOGICAL, AND PHYSICAL ANALYSIS [C-1] . . . . . 3-1  
7 3.1.1 Containerized Waste [C-1a] . . . . . 3-2  
8 3.1.2 Waste in Tank Systems [C-1b] . . . . . 3-2  
9 3.1.3 Waste in Piles [C-1c] . . . . . 3-3  
10 3.1.4 Landfilled Wastes [C-1d] . . . . . 3-3  
11 3.1.5 Wastes Incinerated and Wastes Used in Performance  
12 Tests [C-1e] . . . . . 3-3  
13 3.1.6 Wastes to be Land Treated [C-1f] . . . . . 3-3  
14  
15 3.2 WASTE ANALYSIS PLAN [C-2] . . . . . 3-3  
16 3.2.1 Parameters and Rationale [C-2a] . . . . . 3-6  
17 3.2.2 Test Methods [C-2b] . . . . . 3-7  
18 3.2.3 Sampling Methods [C-2c] . . . . . 3-7  
19 3.2.4 Frequency of Analysis [C-2d] . . . . . 3-8  
20 3.2.5 Additional Requirements for Wastes Generated  
21 Offsite [C-2e] . . . . . 3-8  
22 3.2.6 Additional Requirements for Ignitable, Reactive, or  
23 Incompatible Wastes [C-2f] . . . . . 3-8  
24  
25  
26

APPENDIX

27  
28  
29  
30 3A RADIATION EXEMPT FACILITY LIST . . . . . APP 3A-i  
31  
32

FIGURES

33  
34  
35  
36  
37 3-1. Decision Process for Handling Dangerous Waste . . . . . F3-1  
38 3-2. Waste Control Procedure Description . . . . . F3-2  
39 3-3. Typical Treatment, Storage, and/or Disposal Worksheet . . . . . F3-3  
40 3-4. Compatibility Chart . . . . . F3-4  
41

TABLES

1			
2			
3			
4	3-1.	Common Containers Stored at the 616 Nonradioactive Dangerous	
5		Waste Storage Facility . . . . .	T3-1
6	3-2.	Waste Codes of Materials Stored at the 616 Nonradioactive	
7		Dangerous Waste Storage Facility . . . . .	T3-2
8	3-3.	Parameters and Rationale for Waste Designation . . . . .	T3-3
9	3-4.	Analytical Methodologies . . . . .	T3-4
10	3-5.	Sampling Methods and Equipment . . . . .	T3-5

### 3.0 WASTE CHARACTERISTICS [C]

This chapter provides information on the physical, chemical, and biological characteristics of the waste stored at the 616 NRDWSF. A waste analysis plan is included that describes the methodology used for determining waste types.

#### 3.1 CHEMICAL, BIOLOGICAL, AND PHYSICAL ANALYSIS [C-1]

Nonradioactive dangerous waste generated onsite is transported to the 616 NRDWSF where the waste is stored before transport to an offsite TSD facility. Waste normally is received in U.S. Department of Transportation 5-, 30-, and 55-gallon (18.9-, 113.6-, and 208-liter) containers, but also can be received in other U.S. Department of Transportation-approved containers such as wooden or fiberboard boxes (Table 3-1). No waste is accepted at the 616 NRDWSF in bulk loads.

The 616 NRDWSF receives nonradioactive dangerous waste from onsite processing, testing, maintenance, and construction activities. Shipments are made from onsite generating units to the 616 NRDWSF. The DOE-RL and onsite contractors have implemented control procedures to ensure that proper waste identification, packaging, and Ecology designation are attained (Section 3.2). Figure 3-1 illustrates the process for handling containerized nonradioactive dangerous waste generated onsite.

Most of the nonradioactive dangerous waste received at the 616 NRDWSF consists of old (outdated) pure chemical products, spent dangerous waste sources, product mixtures in small laboratory quantities, and empty dangerous waste drums (WAC 173-303-160). Some waste regulated under the *Toxic Substances Control Act of 1976* (polychlorinated biphenyl) is received and stored at the 616 NRDWSF. Any waste listed in WAC 173-303-9903, or any dangerous waste mixture (WAC 173-303-084), or characteristic waste (WAC 173-303-090), could be generated on the Hanford Site. Waste normally can be characterized into 'U', 'P', 'F', 'D', 'WP', 'WC', or 'WT' Ecology waste code designations by the use of manufacturers' product information, material safety data sheets, laboratory analysis, and such references as 40 CFR 302.4, *Dangerous Properties of Industrial Materials* (Sax 1984), *Registry of Toxic Effects of Chemical Substances* (NIOSH 1986), and *The Condensed Chemical Dictionary* (Sax and Lewis 1987). Waste also is characterized in accordance with the requirements of 40 CFR 261.

It is the responsibility of the generating units to completely and correctly identify the dangerous constituents of their waste. Based on waste identification information provided by the generating unit's waste coordinator, the Solid Waste Engineering staff designates the waste in

1 accordance with WAC 173-303-070. The Solid Waste Engineering staff maintain  
2 auditable copies of the following for each waste stored at the 616 NRDWSF,  
3 applicable:

- 4 • All records providing a description of the waste
- 5
- 6 • Documentation identifying the dangerous characteristics of the waste
- 7
- 8 • The basis for waste designation
- 9
- 10 • Laboratory reports with chemical, biological, and physical analysis of
- 11 samples
- 12
- 13 • Onsite waste tracking forms
- 14
- 15 • Land disposal restriction documentation (Chapter 12.0,
- 16 Section 12.4.2.2.7).
- 17
- 18

19 The generating unit and the 616 NRDWSF maintain copies of the onsite  
20 waste tracking forms and associated documents [i.e., hazardous waste disposal  
21 analysis record (Section 3.2)] identifying the waste characteristics and  
22 assigned waste designations.

23  
24 In general, each package is unique and new containers continuously are  
25 being accepted for storage. In 1990, the 616 NRDWSF received 1,932 containers  
26 in 94 shipments, an average shipment being 20 containers every 4 to 5 days.  
27 The 616 NRDWSF accepts waste for storage with the waste codes identified in  
28 Table 3-2, excluding explosive, shock-sensitive (Section 4.1.4.1), class IV  
29 oxidizer [in waste volumes greater than 10 pounds (4.5 kilograms)] and  
30 radioactive waste. The 616 NRDWSF also can store containerized *Toxic*  
31 *Substances Control Act* regulated waste.

32  
33 Nonradioactive dangerous waste is shipped to an appropriate permitted  
34 MSD facility. The waste is designated according to Ecology regulations for  
35 waste designation outlined in WAC 173-303-070.

### 36 37 38 3.1.1 Containerized Waste [C-1a]

39  
40 The 616 NRDWSF does use a secondary containment system (Chapter 4.0,  
41 Section 4.1.1.3). Therefore, the requirements of WAC 173-303-630(7)(c) are  
42 not applicable to the 616 NRDWSF.

### 43 44 45 3.1.2 Waste in Tank Systems [C-1b]

46  
47 Operation of the 616 NRDWSF does not involve the storage of dangerous  
48 waste in tank systems. Therefore, the requirements of WAC 173-303-640 are not  
49 applicable to the 616 NRDWSF.

1.3 Waste in Piles [C-1c]

Operation of the 616 NRDWSF does not involve the placement of dangerous waste in piles. Therefore, the requirements of WAC 173-303-660 are not applicable to the 616 NRDWSF.

3.1.4 Landfilled Wastes [C-1d]

Operation of the 616 NRDWSF does not involve the placement of dangerous waste in landfills. Therefore, the requirements of WAC 173-303-665 are not applicable to the 616 NRDWSF.

3.1.5 Wastes Incinerated and Wastes Used in Performance Tests [C-1e]

Operation of the 616 NRDWSF does not involve the incineration of dangerous waste. Therefore, the requirements of WAC 173-303-670 are not applicable to the 616 NRDWSF.

3.1.6 Wastes to be Land Treated [C-1f]

Operation of the 616 NRDWSF does not involve the land treatment of dangerous waste. Therefore, the requirements of WAC 173-303-655 are not applicable to the 616 NRDWSF.

3.2 WASTE ANALYSIS PLAN [C-2]

A Hanford Facility waste analysis plan currently is being prepared in accordance with RCRA and WAC 173-303 regulations. The plan will define the requirements for waste moved onsite and for waste received from offsite generators. The Hanford Facility waste analysis plan is being developed as part of the Hanford Facility Dangerous Waste Permit Application (DOE-RL 1991). The 616 NRDWSF waste analysis plan will be updated to conform to the Hanford Facility waste analysis plan when implemented. Until the Hanford Facility waste analysis plan is finalized, the following approach for verifying waste received at the 616 NRDWSF will continue to be used.

Each onsite generating unit (or group of generating units) has an individual (called the waste coordinator) in charge of waste handling. The waste coordinator is trained by Solid Waste Engineering in the following areas:

- Waste management
- Sampling practices
- Waste identification
- Waste segregation

- 1 • Packaging, labeling, and marking
- 2
- 3 • Onsite waste tracking form requirements
- 4
- 5 • Transport
- 6
- 7 • Waste minimization.
- 8

9 The waste coordinator is responsible for correctly and completely  
10 identifying the dangerous constituents of the generating unit's waste and  
11 packaging the waste in accordance with 49 CFR 173. The waste coordinator is  
12 responsible for the proper management of the waste from the generating unit.  
13 The Solid Waste Engineering staff oversees the activities of waste  
14 coordinators.

15  
16 Before shipment of nonradioactive dangerous waste from an onsite  
17 generating unit to the 616 NRDWSF, the waste coordinator secures the waste in  
18 a controlled, less than 90-day storage area. The waste coordinator identifies  
19 the waste from accumulation records and/or product label information. The  
20 waste coordinator assembles the waste information, which consists of  
21 associated sample analysis records and/or manufacturer's data (material safety  
22 data sheets) (Sections 3.2.2 and 3.2.4). Material recovered from a  
23 nonpermitted leak or spill is characterized by identifying the source. If the  
24 source cannot be found or additional unknown waste is suspected, the material  
25 is completely analyzed using a methodology presented in Section 3.2.2.  
26 Actions to be taken in response to a spill or discharge are detailed in  
27 Appendix 7A.

28  
29 The waste coordinator prepares a waste storage/disposal request and  
30 attaches all necessary information in preparation for waste designation (in  
31 accordance with WAC 173-303-070). The waste storage/disposal request is sent  
32 to Solid Waste Engineering where trained designators perform a waste  
33 designation.

34  
35 Figure 3-2 describes the control procedures established by Solid Waste  
36 Engineering for ensuring that waste is designated properly. Based on waste  
37 identification information provided by the waste coordinator, the Solid Waste  
38 Engineering staff designates the waste in accordance with WAC 173-303-070.  
39 The designation process also includes determining if the waste is subject to a  
40 land disposal restriction as required by 40 CFR 268. Figure 3-3 presents a  
41 worksheet used by the Solid Waste Engineering staff to perform the waste  
42 designation. If the information supplied by the generating unit's waste  
43 coordinator is insufficient or the designator suspects the information is  
44 incorrect, the waste coordinator is requested to supply additional  
45 information. This information can include sample analysis reports  
46 (Section 3.2.4) or additional information from the manufacturer.

47  
48 After the designation is complete, a peer review is conducted. In the  
49 peer review, another trained designator reviews and verifies the designation.  
50 The manager of Solid Waste Engineering Analysis (a group within Solid Waste  
51 Engineering) performs the final review and approves the designation.

If a waste is suspected of being improperly identified, verification sampling of the responsible generating unit's waste will be required as detailed in Section 3.2.4.

The Solid Waste Engineering staff makes a final evaluation of waste disposition only after waste characterization is complete and the proper waste designation is made. On completion of the above evaluation, a hazardous waste disposal analysis record is prepared by the Solid Waste Engineering staff. This letter identifies which materials are regulated and which materials are not regulated. The hazardous waste disposal analysis record provides the following information:

- The appropriate waste designation per WAC 173-303-070
- Land ban disposal restrictions per 40 CFR 268
- Packaging, marking, and labeling instructions
- Onsite waste tracking requirements
- Compatibility groups (Figure 3-4)
- Transport contact
- Treatment, storage, and/or disposal unit contact
- Identification of a proper storage cell at the 616 NRWWSF.

The hazardous waste disposal analysis record is sent by the Solid Waste Engineering staff to the generating unit, the 616 NRWWSF, Solid Waste Disposal Unit, and Transportation Logistics. The waste coordinator packages the nonradioactive waste and applies appropriate markings and labels in accordance with the hazardous waste disposal analysis record.

The waste coordinator prepares the waste and associated documentation (e.g., onsite waste tracking forms) according to the hazardous waste disposal analysis record. Before transport, a Transportation Logistics representative reviews the onsite waste tracking forms and each waste package against the hazardous waste disposal analysis record to ensure U.S. Department of Transportation requirements are met. The representative also checks the condition, marking, and labeling of the packages. If discrepancies or deficiencies are found, these are corrected by the waste coordinator before receiving approval for shipment to the 616 NRWWSF. The Transportation Logistics representative initials the onsite waste tracking form indicating the load is acceptable for transportation to the 616 NRWWSF.

The Radiation Exempt Facility List (Appendix 3A) identifies those areas that the Health Physics organization has verified to be free of radiological contamination. If an area is used for the handling or storage of radioactive material, the area is removed from the list. If Health Physics can verify that an area has contained no radiologically contaminated materials, the area can be added to the Radiation Exempt Facility List. A generating unit can be

1 relieved of radiation survey requirements for waste submitted to the  
2 616 NRDWSF if the area the waste originated from is listed on the Appendix  
3 list. The generating unit is required to submit a certification that the  
4 waste was generated in an exempt area before transferring the waste to the  
5 616 NRDWSF.

6  
7 Waste from areas not listed on the Appendix 3A list is required to be  
8 surveyed and unconditionally released within 24 hours of the receiving time  
9 the 616 NRDWSF. The 616 NRDWSF personnel do not accept waste without the  
10 proper radiation release documentation.

11  
12 The transporter ensures the waste packages are marked and labeled as  
13 indicated by the hazardous waste disposal analysis record and the onsite waste  
14 tracking form is complete. The transporter verifies that a Transportation  
15 Logistics representative has initialed the onsite waste tracking form, checks  
16 the condition of the package, and verifies that each container bears a valid  
17 radiological release (or that one release covers a set of containers). The  
18 transporter loads the vehicle, the waste coordinator signs for the generating  
19 unit, and the transporter signs the onsite waste tracking form. Solid Waste  
20 Disposal Unit personnel transport the nonradioactive dangerous waste from the  
21 generating unit to the 616 NRDWSF.

22  
23 At the 616 NRDWSF, nuclear operators check the onsite waste tracking form  
24 against the chemical waste disposal analysis letter to verify that the onsite  
25 waste tracking form is correct, that the Transportation Logistics  
26 representative's initials and the waste coordinator's and the transporter's  
27 signatures are present. Nuclear operators check the condition of the marking,  
28 labeling, and the presence of a valid radiological release on each waste  
29 package. If the load is accepted, the packages are removed from the vehicle  
30 and the packages are stored in the 616 NRDWSF, as indicated on the hazardous  
31 waste disposal analysis record. If a discrepancy or deficiency is found, it  
32 is handled as detailed in Chapter 2.0, Section 2.8.2. After the load is  
33 accepted, the 616 NRDWSF Supervisor (or a delegate) signs the onsite waste  
34 tracking form as the storage unit operator.

35  
36 All dangerous waste shipped offsite from the 616 NRDWSF is subject to the  
37 verification sampling program of the receiving TSD facility as required by  
38 WAC 173-303-300(3).

### 39 40 41 3.2.1 Parameters and Rationale [C-2a]

42  
43 The minimum parameters needed for waste designation and the rationale for  
44 their selection are presented in Table 3-3. The goal of obtaining this  
45 information is to ensure that a proper and complete waste designation is made  
46 per WAC 173-303-080 through 103 and 40 CFR 264.13 before acceptance of waste  
47 at the 616 NRDWSF. The information also ensures that all hazards of the waste  
48 have been identified for the purposes of safe handling and proper waste  
49 disposition (including radiological screening). When possible, information on  
50 a material is taken from manufacturer information (e.g., material safety data  
51 sheets). If this information is not sufficient, analytical testing will be  
52 performed. Dangerous waste toxic mixtures (WT01 and WT02) of known chemical

Content will be designated according to toxicity calculations defined in WAC 173-303-084(5), which uses the National Institute for Occupational Safety and Health registry (NIOSH 1985).

## 2.2 Test Methods [C-2b]

To completely characterize the waste before transport to the 616 NRDSWF, analytical testing often is required by the generating unit, Solid Waste Engineering, or the offsite waste disposal contractor (Section 3.2.4). Table 3-4 lists analytical methodologies by which the waste is to be analyzed.

In all instances, test methods must conform to those referenced in the *Chemical Testing Methods* (Ecology March 1982, revised July 1983), the American Society for Testing Materials (ASTM 1982), or the *Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods (SW-846)*. All test methods must conform to those referenced in WAC 173-303-110.

## 3.2.3 Sampling Methods [C-2c]

Representative sampling can be requested by Solid Waste Engineering to ensure proper waste identification, and the sampling will be performed under the direction of a waste coordinator at the point of generation.

The specific sampling methods and equipment vary with the chemical and physical nature of the waste material and the sampling circumstances. All sampling methods must conform to those referenced in WAC 173-303-110.

Sampling methods and equipment used for sampling different materials are presented in Table 3-5. For liquid waste in tanks or containers, a composite liquid waste sampler (COLIWASA) device or tubing is used to obtain a vertical core section. The length of the liquid sampler device is adequate to reach the bottom of the vessel, thus providing a representative sample of all phases of the waste. Sample analysis is performed on each phase of the waste. For solid waste, either tubing or a scoop can be used, depending on the nature of the waste. For bulk solids, such as contaminated soil, representative samples are obtained with a trier or an auger. For contaminated containment structures, such as concrete or steel, samples are obtained using the EPA wipe sampling procedure (EPA 1987). Composite sampling is performed by obtaining samples in random locations. Should a maximum chemical contamination level be required, the location of the highest likely chemical contamination is chosen for sampling purposes.

All sampling equipment and sample containers are handled so that cross-contamination is minimized. For example, most sampling equipment consists of disposable units to prevent cross-contamination. Plastic materials (other

1 than Teflon\*) is not used for organic waste sampling. Appropriate  
2 preservation techniques and chain-of-custody requirements specified in SW-84  
3 are used.  
4

#### 5 6 3.2.4 Frequency of Analysis [C-2d] 7

8 | Currently, there are no onsite generating units that generate a  
9 continuous, nonradioactive dangerous waste stream for which the chemical  
10 constituents and their concentrations are not readily known from knowledge of  
11 the raw materials. Each request for waste disposition is considered unique  
12 and is normally a one-time-only situation. The need for sampling and analysis  
13 of a particular waste is identified at the time the waste is generated or at  
14 the time a disposal request is received by the Solid Waste Engineering staff.  
15 Should a continuous, nonradioactive dangerous waste stream be identified, an  
16 initial laboratory analysis is made (if necessary) with periodic analysis  
17 repeated at least annually and whenever the process used or raw materials  
18 usage changes.  
19

20 Samples of newly identified waste streams are sent to an offsite  
21 TSD facility for waste profiling to ensure that the waste designation assigned  
22 by the Solid Waste Engineering staff (Section 3.2) is accurate. This  
23 verification analysis does not eliminate the need for the offsite TSD facility  
24 to perform verification sampling as required by WAC 173-303-300(3).  
25

26 If a waste is determined to be improperly designated because of a  
27 significant error in information provided by the waste coordinator,  
28 verification sampling of the responsible generating unit's waste stream(s)  
29 will be required. For 2 months following the discovery of an incorrect  
30 designation, the responsible waste coordinator will be required to submit  
31 laboratory verification results for each waste stream that is addressed in a  
32 | waste storage/disposal request (Section 3.2).  
33  
34

#### 35 3.2.5 Additional Requirements for Wastes Generated Offsite [C-2e] 36

37 As previously discussed, all onsite generating and TSD units are operated  
38 by the DOE-RL and managed by individual contractors, but maintained under a  
39 common identification number. All activities are considered 'onsite'  
40 activities.  
41  
42

#### 43 3.2.6 Additional Requirements for Ignitable, Reactive, 44 or Incompatible Wastes [C-2f] 45

46 Based on the hazard characteristics identified by the waste coordinator,  
47 specific packaging instructions are provided by the Solid Waste Engineering  
48 staff. Instructions taken into consideration are the ignitability,  
49 reactivity, and potential incompatibilities of the waste stream.

---

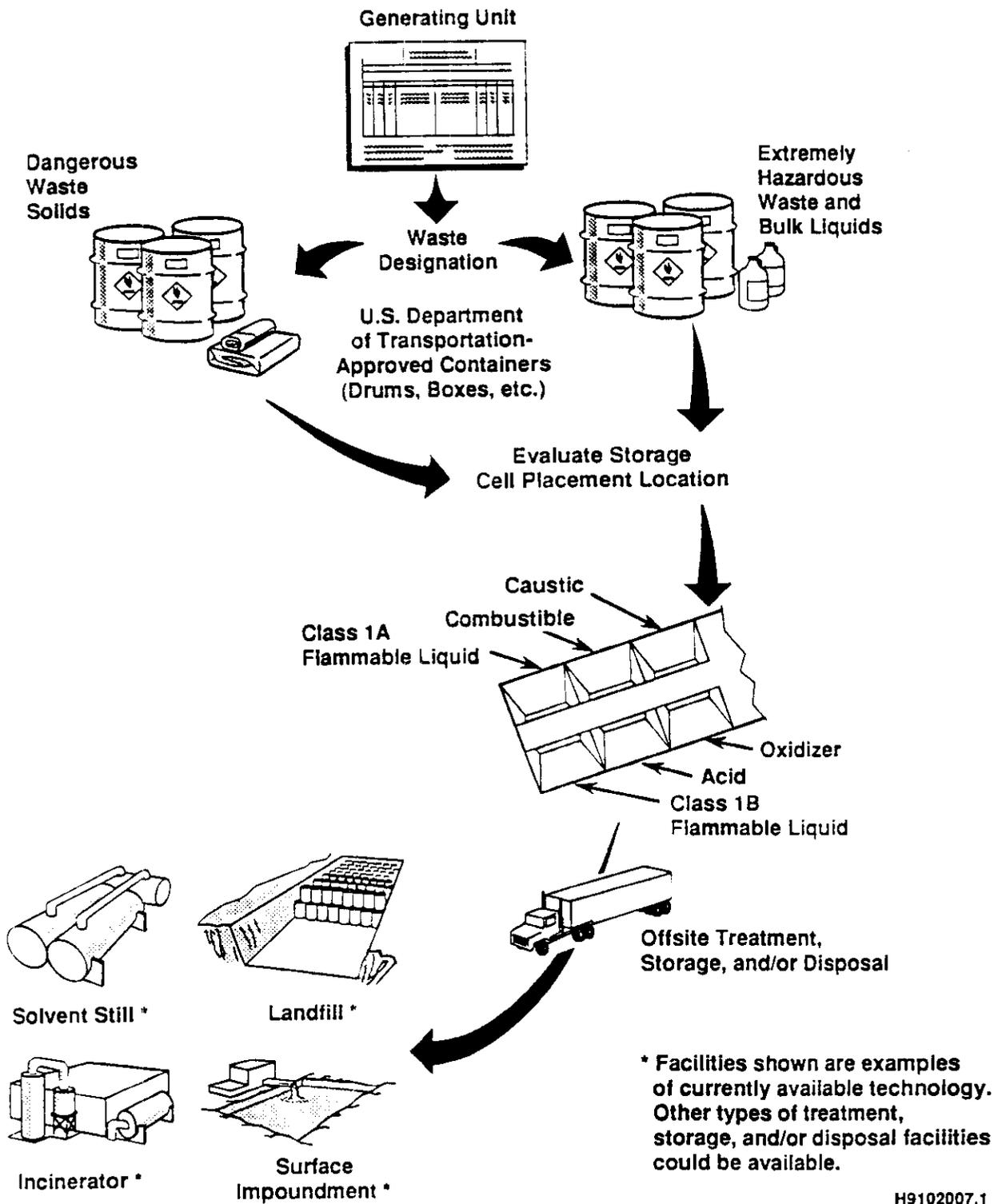
50 \*Teflon is a trademark of E.I. DuPont de Nemours & Company, Incorporated.

Instructions are in compliance with U.S. Department of Transportation regulations at all times. If multiple waste types are to be placed in a single container (e.g., labpacks), compatibility analyses are performed and potentially incompatible waste is packaged in separate containers. In no case is waste of differing hazard classes packaged together. Dangerous waste is packaged in a compatible labpack and stored at the 616 NRDWSF before transport to an offsite TSD facility. Dangerous waste is not placed in an unwashed container that previously held an incompatible waste or material. A mixture of extremely hazardous waste and dangerous waste always will be designated as extremely hazardous waste. Various references are used to determine potential incompatibilities. Figure 3-4 presents a compatibility chart used, in conjunction with their associated tests, for this purpose.

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
Infrequently, the Solid Waste Engineering staff is alerted to the existence of shock-sensitive or peroxide-forming chemicals that could present a serious explosive hazard. Examples are laboratory quantities of unstable 'dry' picric acid or outdated ethyl ether. These chemicals are not allowed at the 616 NRDWSF. The location of the chemical is noted and the risk to personnel and structures determined. A bomb disposal squad ultimately is used to detonate these chemicals.

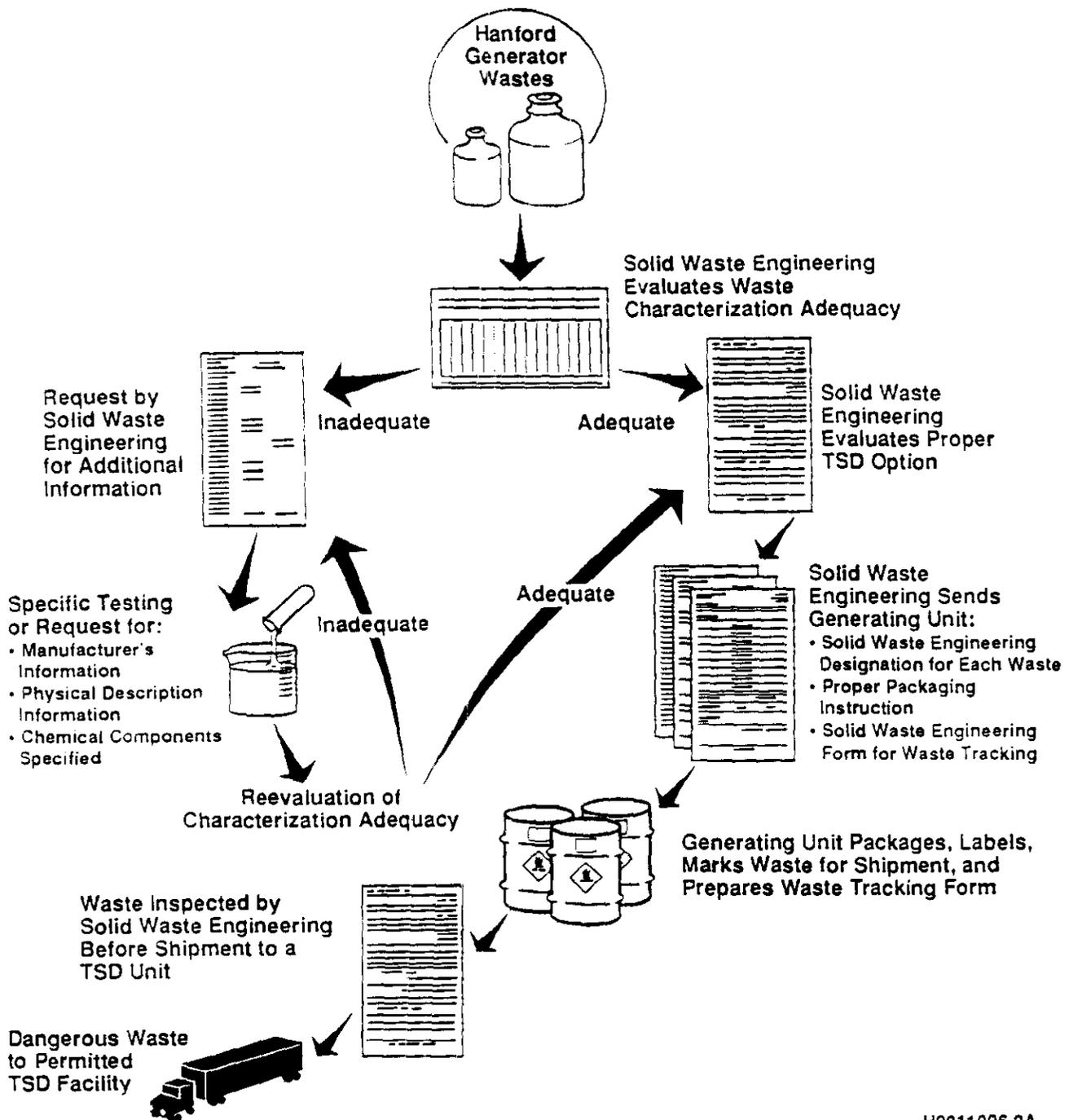
1  
2  
3  
4  
5

This page intentionally left blank.



H9102007.1

Figure 3-1. Decision Process for Handling Dangerous Waste.



H9011006.2A

Figure 3-2. Waste Control Procedure Description.





Table 3-1. Common Containers Stored at the 616 Nonradioactive  
Dangerous Waste Storage Facility.

DOT <sup>a</sup> Spec.	Container	Material	Ref. <sup>b</sup> (49 CFR 178)
12P/12U	CF <sup>c</sup> w/inner poly liner	Fiberboard/polyethylene	178.211/178.24
12B	CF	Fiberboard	178.205
17C	DM <sup>d</sup>	Low carbon steel	178.115
17E	DM	Low carbon steel	178.116
17H	DM	Low carbon steel	178.118
34	DF <sup>e</sup>	Polyethylene	178.19
37A	DM	Low carbon steel	178.131
37B	DM	Low carbon steel	178.132

<sup>a</sup>U.S. Department of Transportation specifications.

<sup>b</sup>Reference section of regulations.

<sup>c</sup>CF = fiberboard box.

<sup>d</sup>DM = drum, metal.

<sup>e</sup>DF = drum, fiberboard.

12  
13  
14  
15  
16  
17

Table 3-2. Waste Codes of Materials  
Stored at the 616 Nonradioactive  
Dangerous Waste Storage Facility.

Waste codes	Reference
U and P numbers	WAC-173-303-9903
F numbers	WAC-173-303-9904
W001	WAC-173-303-9904
D001	WAC-173-303-090(5)
D002	WAC-173-303-090(6)
D003	WAC-173-303-090(7)
D004 through D043	WAC-173-303-090(8)
WT01 and WT02	WAC-173-303-101/104
WP01, WP02 and WP03	WAC-173-303-102/104
WC01 and WC02	WAC-173-303-103/104
WLO1 and WLO2	WAC-173-303-180

14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26

Table 3-3. Parameters and Rationale for Waste Designation. (sheet 1 of 2)

Analytical Parameter	Rationale for Selection
Radioactive screen	All waste suspected of being radioactively contaminated or located within a radioactive zone is screened for radioactivity before being released to nonradioactive areas for the purpose of safe handling and proper management of the hazard characteristic.
pH	To indicate the degree of corrosivity of the waste for safe handling and to establish a relatively simple indicator parameter for the purpose of verification.
3. Flash point	To determine conditions for ignitability of waste content for safe handling. Organic waste that is determined to be ignitable will be directed to incineration or to reuse or recycle options if possible. This test also will determine if waste is an Ecology-and/or U.S. Department of Transportation-regulated ignitable, flammable, or combustible substance.
7 4. Water reactivity 8	To determine whether the waste has a potential to violently react with water to form gases or generate heat for the purpose of safe handling and proper disposition. The need for waste treatment may be determined, should waste be considered water reactive.
9 5. Reactive cyanide/ 10 reactive 11 sulfide 12 content 13	To determine if waste produces hydrogen cyanide or hydrogen sulfide on acidification below pH 2. A positive cyanide or sulfide screen would direct the waste to a treatment or incineration facility. This waste would not be landfilled. This information would not be required for waste with pH less than 6.
14 6. Chemical 15 compatibility	An analysis of dangerous reaction potential with other waste types will be performed for the purpose of segregating waste types in the 616 NRDWSF.
16 7. Physical 17 description	To determine the general physical characteristics of the waste (e.g., viscosity, color, texture, odor-free liquids) for comparison between generating unit-supplied information and verification by the Solid Waste Engineering staff.
18 8. Specific 19 gravity	To establish a measurement for a parameter that effectively compares liquid waste characteristics against generating unit-supplied information.
20 9. PCB screen	To determine PCB content in oil-bearing waste for the purpose of managing this waste in accordance with regulations prescribed in the <i>Toxic Substance Control Act of 1976</i> .

Table 3-3. Parameters and Rationale for Waste Designation. (sheet 2 of 2)

Analytical Parameter	Rationale for Selection
10. TCLP	A method used to determine whether a waste is a regulated toxic waste due to its toxicity characteristics.
11. Toxicity	To determine whether a waste is Ecology-regulated dangerous waste or extremely hazardous waste because of its toxic constituents as determined by the NIOSH Registry of Toxic Effects.
12. Halogenated hydrocarbons	To determine whether a waste is Ecology-regulated dangerous waste or extremely hazardous waste because of its halogenated hydrocarbon content.
13. Polycyclic aromatic hydrocarbons	To determine whether a waste is Ecology-regulated dangerous waste or extremely hazardous waste because of its polycyclic aromatic hydrocarbon content.
14. Carcinogenicity	To determine whether a waste is Ecology-regulated dangerous waste or extremely hazardous waste because of its carcinogenic chemical constituents as determined by the International Agency for Research on Cancer.
15. Biological testing	To determine whether a waste is Ecology-regulated dangerous waste or extremely hazardous waste because of its toxic constituents as determined by tests on biological systems.

Ecology = Washington State Department of Ecology  
 NIOSH = National Institute for Occupational Safety and Health  
 PCB = polychlorinated biphenyl  
 TCLP = toxicity characteristics leaching procedure

Table 3-4. Analytical Methodologies.

Parameter	Methods*
Ignitability	<i>Chemical Testing Methods</i> , March 1982, revised July 1983
Corrosivity	<i>Chemical Testing Methods</i> , March 1982, revised July 1983, including the addendum <i>Test Method for Determining pH of Solutions in Contact with Solids</i> , March 1984
Reactivity	<i>Chemical Testing Methods</i> , March 1982, revised July 1983
Toxicity characteristics leaching procedure	<i>EPA Final Rule</i> , Federal Register, Volume 55, pages 11799 through 11877, March 1990
Halogenated hydrocarbons	<i>Chemical Testing Methods</i> , March 1982, revised July 1983
Polycyclic aromatic hydrocarbons	<i>Chemical Testing Methods</i> , March 1982, revised July 1983 and March 1984
Static acute fish toxicity test	<i>Biological Testing Methods</i> , July 1980
Acute oral rat toxicity test	<i>Biological Testing Methods</i> , July 1980
Free liquids (absence or presence)	<i>Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846</i> (most recent edition and all updates), Including "Method 9095" (Paint Filter Liquids Test)
Chlorinated dibenzo-p-dioxins and dibenzofurans	40 CFR 261, Appendix X
Polychlorinated biphenyls in transformer fluids and waste oils	EPA-600/4-81-045
Polychlorinated biphenyls in mineral insulating oils by gas chromatography	ASTM Standard D 4059-86

\*WAC 173-303-110 - unless otherwise noted.  
EPA = U.S. Environmental Protection Agency.  
ASTM = American Society for Testing and Materials.

Table 3-5. Sampling Methods and Equipment.

Material	Sampling method	Sampling equipment
Containerized liquids	SW-846	COLIWASA* or tubing
Extremely viscous liquid	ASTM D140-70	Tubing or trier
Crushed or powdered material	ASTM D364-75	Tubing, trier, auger, scoop, or shovel
Soil or rock-like material	ASTM D420-69	Tubing, trier, auger, scoop, or shovel
Soil-like material	ASTM D1452-65	Tubing, trier, auger, scoop, or shovel
Fly ash-like material	ASTM D2234-76	Tubing, trier, auger, scoop, or shovel
Containment systems	Wipe sampling (OSHA 1977)	Filter paper and cleaning solution

\*COLIWASA = composite liquid waste sampler device.

Enclosure 3

SOLID WASTE DESIGNATION WORKSHEET

DESCRIPTION OF WASTE					
WSDR #	Container, Quantity and Type				
Item #	Solid Phase	<input type="checkbox"/>	Density †		Waste Status
MSDS #	Liquid Phases	<input type="checkbox"/>	pH		Designator
Weight, kg	Gas Phase	<input type="checkbox"/>	FP, (°F)		Desig. Date

† For solid & liquid substances & mixtures of substances, the numerical values of mass density & specific gravity for any given sample of matter are equal to one another.

CHEMICAL COMPOSITION OF WASTE	ECOLOGY TOX. CATEGORY	WEIGHT % (w/o)	(Σ w/o i) + 1 i = X, A, B, C, D	REFERENCE (RTECS, etc.)

‡ Equivalent Concentration (EC%) =  $\sum w/o X \cdot \frac{\sum w/o A}{10} \cdot \frac{\sum w/o B}{100} \cdot \frac{\sum w/o C}{1000} \cdot \frac{\sum w/o D}{10,000}$  EC% =

HAZARDOUS WASTE CATEGORY	GUIDING DOCUMENTS	REG. ? Yes No	WASTE CLASS DW/EI/II/III/IV	HAZARDOUS WASTE CODES	LDR ? Yes No
<b>DANGEROUS WASTE SOURCE</b> Used: Possibly one of: F, K, & W001	40 CFR 261.51 & 261.52 WAC 173-303-082 & WAC 173-303-9904 List	<input type="checkbox"/> <input type="checkbox"/>			<input type="checkbox"/> <input type="checkbox"/>
<b>DISCARDED CHEMICAL PRODUCT</b> Unused & Sole active ingredient: P & U	40 CFR 261.53 WAC 173-303-081 & WAC 173-303-9903 List	<input type="checkbox"/> <input type="checkbox"/>			<input type="checkbox"/> <input type="checkbox"/>
<b>CHARACTERISTIC OF IGNITABILITY</b> Flashpoint < 140°F and/or oxidizer: D001	40 CFR 261.21 49 CFR 173.115 - 127 WAC 173-303-090 (5)	<input type="checkbox"/> <input type="checkbox"/>			<input type="checkbox"/> <input type="checkbox"/>
<b>CHARACTERISTIC OF CORROSIVITY</b> pH ≤ 2 or pH ≥ 12.5: D002	40 CFR 261.22 49 CFR 173.136 WAC 173-303-090 (6)	<input type="checkbox"/> <input type="checkbox"/>			<input type="checkbox"/> <input type="checkbox"/>
<b>CHARACTERISTIC OF REACTIVITY</b> Water-reactive, explosive, etc.: D003	40 CFR 261.23 WAC 173-303-090 (7) (No 49 CFR reference)	<input type="checkbox"/> <input type="checkbox"/>			<input type="checkbox"/> <input type="checkbox"/>
<b>TOXICITY CHARACTERISTIC (TC)</b> Unlisted Hazardous Waste: D004 - D043	40 CFR 261.24 WAC 173-303-090 (8) (Use LAB WORKSHEET)	<input type="checkbox"/> <input type="checkbox"/>			<input type="checkbox"/> <input type="checkbox"/>
<b>TOXICITY CRITERIA</b> Total EC% > 0.001; see 9906 Graph to determine if WT02-DW or WT01-EIIV	WAC 173-303-100 (5) & 173-303-9906 Graphs; Total EC% from table above (Consult RTECS)	<input type="checkbox"/> <input type="checkbox"/>			<input type="checkbox"/> <input type="checkbox"/>
<b>PERSISTENCE CRITERIA</b> HH > 0.01%; WP02-DW or III > 1% WP01-EIIV; PAII > 1%, WP03-EIIV	WAC 173-303-100 (6) & 173-303-9907 Graphs; (No DW for PAII)	<input type="checkbox"/> <input type="checkbox"/>			<input type="checkbox"/> <input type="checkbox"/>
<b>CARCINOGENIC CRITERIA</b> > 0.01% single carcinogen, WC02-DW or > 1.0% total carcinogens, WC02-DW	WAC 173-303-100 (7); (No EIIV for carcinogens). (Read ECOLOGY letter(s))	<input type="checkbox"/> <input type="checkbox"/>			<input type="checkbox"/> <input type="checkbox"/>
<b>PCB WASTE</b> Possibly one of: W001; PCB1, or PCB2	40 CFR 761 (TSCA); WAC 173-303-9904 List. (Use PCB FLOWSHEET)	<input type="checkbox"/> <input type="checkbox"/>			<input type="checkbox"/> <input type="checkbox"/>

\* NOTE: The SOLID WASTE DESIGNATION WORKSHEET is intended to be used with the SOLID WASTE DESIGNATION FLOWSHEET.

PROPER SHIPPING NAME			
Waste Class	Waste Codes		
Hazard Class	Hazard Labels		
DOT ID#	Ship To		
Packaging	Storage Cell	Land Ban Codes	

Figure 3-3. Typical Treatment, Storage, and/or Disposal Worksheet.

Enclosure 4

**Building 616 Weekly Solid Waste Engineering  
Inspection. (sheet 2 of 3)**

	Packaging and Sampling Room*	Oxidizer*	Caustic*	Acid*	Combustible*	Flammable 1B*	Flammable 1A*
<b>5.0 Storage Areas</b>							
<b>A. Container Condition:</b>							
Closed							
Corrosion							
Evidence of leakage							
Required labels							
Structural defects							
<b>B. Structures:</b>							
Curbing							
Exits unobstructed							
Floor							
Roof/walls							
Signs							
<b>C. Safety/Emergency Equipment</b>							
Personal Protective Equipment*		NA	NA	NA	NA	NA	NA
Emergency light operable		NA		NA			NA
Exit light operating							
Fire extinguisher charged	NA	NA	NA	NA			NA
Public address system (audible)							
Safety shower/eye wash tested/flushed (weekly); date tested:		NA	NA	NA		NA	NA
<b>D. Container Location<sup>b</sup></b>							
Waste Tracking Form ID No./Location							
Waste Tracking Form ID No./Location							
Waste Tracking Form ID No./Location							
Waste Tracking Form ID No./Location							
Waste Tracking Form ID No./Location							

\*N/A - Not applicable.

X - No problems noted.

C - See comments for problem description or remedial action required.

<sup>b</sup>Five container locations are verified against the storage building inventory. Record the waste tracking form ID No./location for each container checked above. Record discrepancies identified in the comments section.

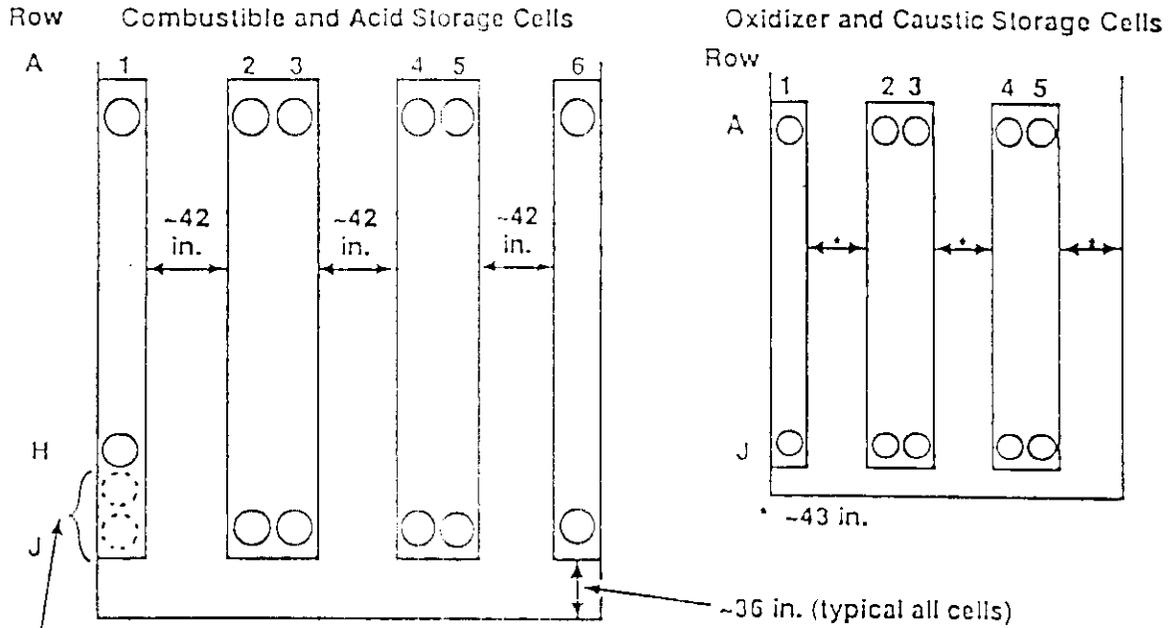
\*Located in sealed cabinet. Check for integrity of seal.

Figure 6-2. Building 616 Weekly Solid Waste Engineering Inspection. (sheet 2 of 3)

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46

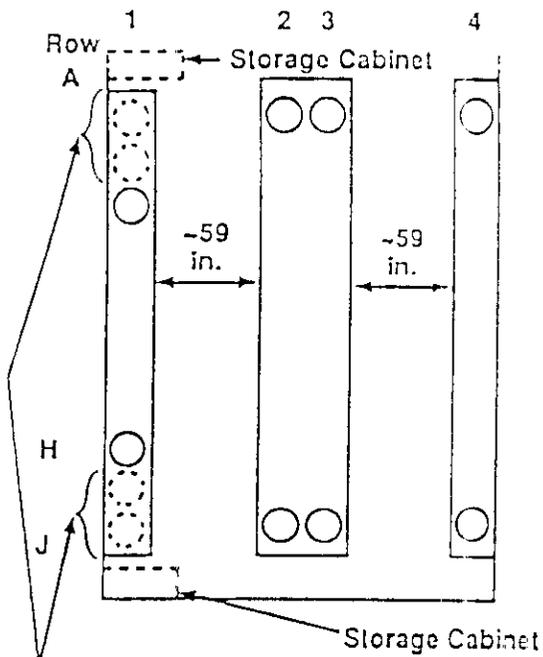
87-1178

Enclosure 5



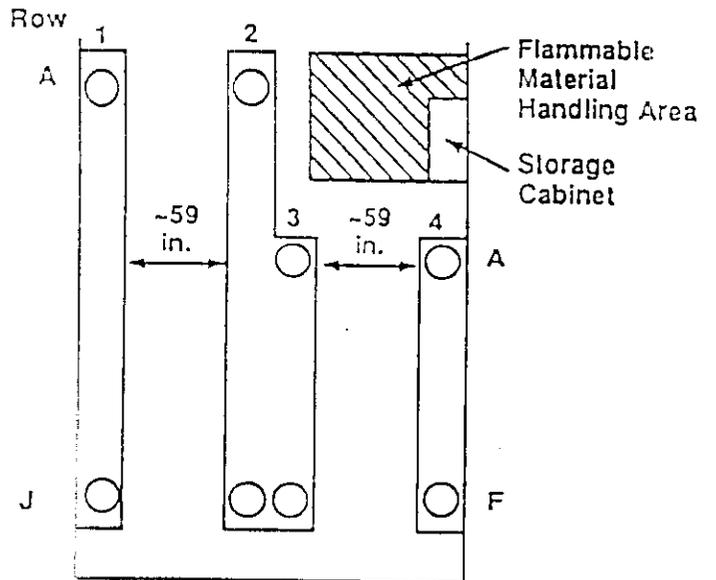
These two locations not present in the Combustible Cell to make room for the Safety Shower/Eyewash Station

Class 1B Flammable Liquid Storage Cell



These four locations not present when Storage Cabinets are used

Class 1A Flammable Liquid Storage Cell



(Not to Scale)

Figure 6-3. Current Container Storage Layout.

79005021.1

ENCLOSURE

Enclosure 6

ENGINEERING CHANGE NOTICE

FILE COPY

1. ECN 191786

Page 1 of 5

Proj. ECN

2. ECN Category (mark one) Supplemental <input checked="" type="checkbox"/> Direct Revision <input type="checkbox"/> Change ECN <input type="checkbox"/> Temporary Standby <input type="checkbox"/> Supersedure <input type="checkbox"/> Cancel/Void <input type="checkbox"/>	3. Originator's Name, Organization, MSIN, and Telephone No. D.B. Bodily, 87250, T4-03, 373-2188		4. Date 10/28/93
	5. Project Title/No./Work Order No. 616 LIFTING PLATFORM	6. Bldg./Sys./Fac. No. 616	7. Impact Level 3SQ
	8. Document Numbers Changed by this ECN (includes sheet no. and rev.) SEE BLOCK 12		9. Related ECN No(s). N/A

11a. Modification Work <input checked="" type="checkbox"/> Yes (fill out Blk. 11b) <input type="checkbox"/> No (NA Blks. 11b, 11c, 11d)	11b. Work Package No. 2X-93-00231	11c. Modification Work Complete JUN 13 1994 <i>D.B. Bodily</i> 5/17/94 Cog. Engineer Signature & Date	11d. Restored to Original Condition (Temp. or Standby ECN only) N/A _____ Cog. Engineer Signature & Date
-----------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------	----------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------

12. Description of Change

- 1) Add a sheet 2 and sheet 3 to drawing H-6-1556 Rev. 3., *SHT. 1*
- 2) Add drawings and details on page 3 of this ECN to sheet 2 of drawing H-6-1556 Rev. 0.
- 3) Add assembly and detail drawings on page 4 of this ECN to sheet 3 of drawing H-6-1556 Rev. 0.
- 4) Add information per the clouded area on page 5 of this ECN to drawing H-6-1556 Rev. 3

13a. Justification (mark one) As-Found <input type="checkbox"/>	Criteria Change <input type="checkbox"/>	Design Improvement <input checked="" type="checkbox"/>	Environmental <input type="checkbox"/>
Facilitate Const. <input type="checkbox"/>	Const. Error/Omission <input type="checkbox"/>	Design Error/Omission <input type="checkbox"/>	

13b. Justification Details

These drawings and details document the location of the lifting platform at 616.

14. Distribution (include name, MSIN, and no. of copies) D.B. Bodily, T4-03, 1 S. Griffin, T4-03, 1 (File copy) S. Turner, T4-06, 1 J. Elliott, T4-06, 1  STA #4 R1-29 STA #3 S2-05 STA #20 T4-00	RELEASE STAMP OFFICIAL RELEASE BY WHC 63 DATE NOV 04 1993 Sta #6
---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------

A-7900-013-2 (06/92) GEF095

A-7900-013-1 (06/92)

SUPPORT

ENGINEERING CHANGE NOTICE

15. Design Verification Required [X] Yes [ ] No	16. Cost Impact		17. Schedule Impact (days)	
	ENGINEERING		CONSTRUCTION	
	Additional [ ] \$	Additional [ ] \$	Improvement [ ]	
[ ] No	Savings [ ] \$ N/A	Savings [ ] \$ N/A	Delay [ ]	N/A

18. Change Impact Review: Indicate the related documents (other than the engineering documents identified on Side 1) that will be affected by the change described in Block 12. Enter the affected document number in Block 19.

SOD/DD	[ ]	Selamic/Stress Analysis	[ ]	Tank Calibration Manual	[ ]
Functional Design Criteria	[ ]	Stress/Design Report	[ ]	Health Physics Procedure	[ ]
Operating Specification	[ ]	Interface Control Drawing	[ ]	Spares Multiple Unit Listing	[ ]
Criticality Specification	[ ]	Calibration Procedure	[ ]	Test Procedures/Specification	[ ]
Conceptual Design Report	[ ]	Installation Procedure	[ ]	Component Index	[ ]
Equipment Spec.	[ ]	Maintenance Procedure	[ ]	ASME Coded Item	[ ]
Const. Spec.	[ ]	Engineering Procedure	[ ]	Human Factor Consideration	[ ]
Procurement Spec.	[ ]	Operating Instruction	[ ]	Computer Software	[ ]
Vendor Information	[ ]	Operating Procedure	[ ]	Electric Circuit Schedule	[ ]
OM Manual	[ ]	Operational Safety Requirement	[ ]	ICRS Procedure	[ ]
FSAR/SAR	[ ]	IEFD Drawing	[ ]	Process Control Manual/Plan	[ ]
Safety Equipment List	[ ]	Cell Arrangement Drawing	[ ]	Process Flow Chart	[ ]
Radiation Work Permit	[ ]	Essential Material Specification	[ ]	Purchase Requisition	[ ]
Environmental Impact Statement	[ ]	Fac. Proc. Semp. Schedule	[ ]		
Environmental Report	[ ] N/A	Inspection Plan	[ ] N/A		
Environmental Permit	[ ]	Inventory Adjustment Request	[ ]		

19. Other Affected Documents: (NOTE: Documents listed below will not be revised by this ECN.) Signatures below indicate that the signing organization has been notified of other affected documents listed below.

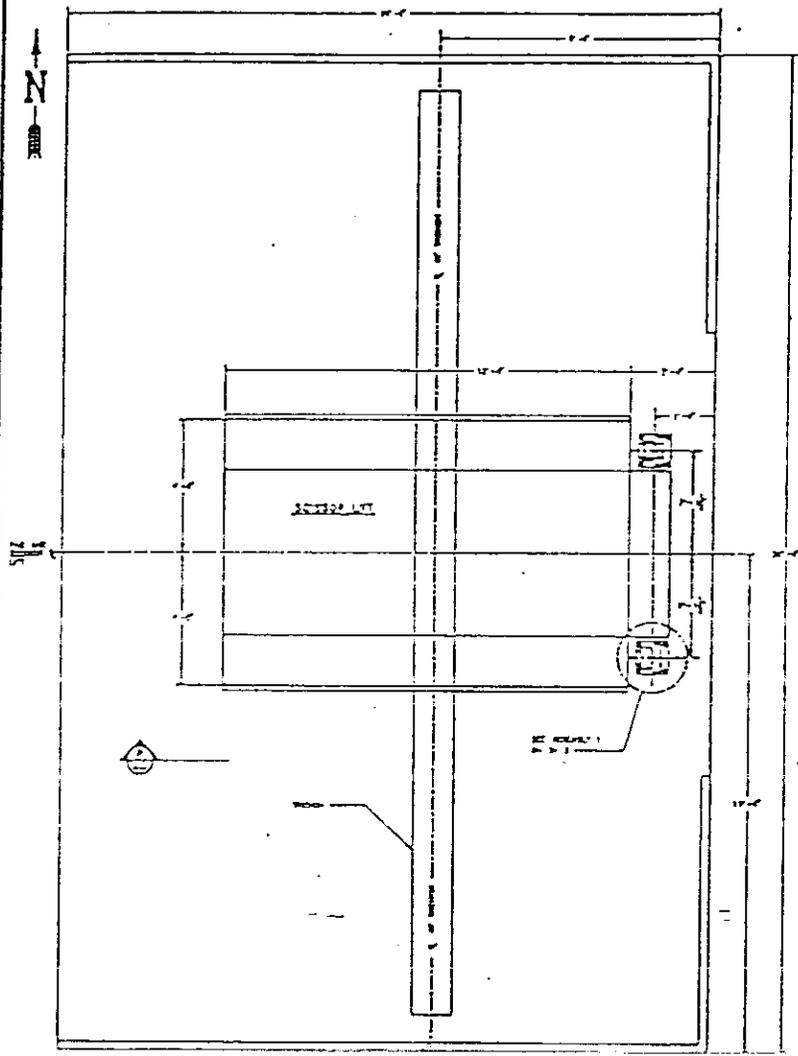
Document Number/Revision                      Document Number/Revision                      Document Number/Revision

N/A

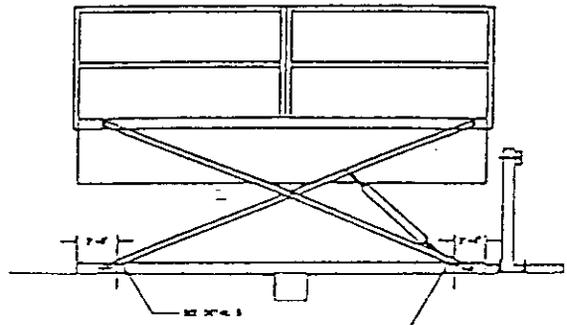
20. Approvals

Signature	Date	Signature	Date
OPERATIONS AND ENGINEERING		ARCHITECT-ENGINEER	
Cog Engineer <i>D.B. Brady</i>	<u>10/28/93</u>	PE	_____
Cog. Mgr. <i>D. Brundell</i>	<u>11/2/93</u>	QA	_____
QA <i>John Elliott</i>	<u>11-2-93</u>	Safety	_____
Safety <i>W. P. ...</i>	<u>11-2-93</u>	Design	_____
Security	_____	Environ.	_____
Environ.	_____	Other	_____
Projects/Programs	_____		_____
Tank Waste Remediation System	_____		_____
Facilities Operations	_____	DEPARTMENT OF ENERGY	_____
Restoration & Remediation	_____	Signature or Letter No.	_____
Operations & Support Services	_____		_____
IRM	_____	ADDITIONAL	_____
Other Ind. Rep. <i>P.M. Ruben</i>	<u>10/29/93</u>		_____
<i>[Signature]</i>	<u>11-2-93</u>		_____

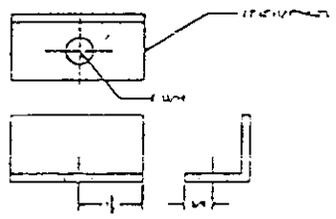




LOADING PAD PLAN  
SCALE 1/4" = 1'-0"



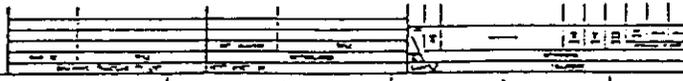
ELEVATION  
SCALE 1/4" = 1'-0"



DETAIL 5  
SCALE 1/4" = 1'-0"

REVISIONS

NO.	DATE	DESCRIPTION
1	10/15/86	ISSUED FOR CONSTRUCTION
2	11/10/86	REVISED TO SHOW REVISIONS
3	12/15/86	REVISED TO SHOW REVISIONS
4	01/10/87	REVISED TO SHOW REVISIONS
5	02/15/87	REVISED TO SHOW REVISIONS
6	03/10/87	REVISED TO SHOW REVISIONS
7	04/15/87	REVISED TO SHOW REVISIONS
8	05/10/87	REVISED TO SHOW REVISIONS
9	06/15/87	REVISED TO SHOW REVISIONS
10	07/10/87	REVISED TO SHOW REVISIONS
11	08/15/87	REVISED TO SHOW REVISIONS
12	09/10/87	REVISED TO SHOW REVISIONS
13	10/15/87	REVISED TO SHOW REVISIONS
14	11/10/87	REVISED TO SHOW REVISIONS
15	12/15/87	REVISED TO SHOW REVISIONS
16	01/10/88	REVISED TO SHOW REVISIONS
17	02/15/88	REVISED TO SHOW REVISIONS
18	03/10/88	REVISED TO SHOW REVISIONS
19	04/15/88	REVISED TO SHOW REVISIONS
20	05/10/88	REVISED TO SHOW REVISIONS
21	06/15/88	REVISED TO SHOW REVISIONS
22	07/10/88	REVISED TO SHOW REVISIONS
23	08/15/88	REVISED TO SHOW REVISIONS
24	09/10/88	REVISED TO SHOW REVISIONS
25	10/15/88	REVISED TO SHOW REVISIONS
26	11/10/88	REVISED TO SHOW REVISIONS
27	12/15/88	REVISED TO SHOW REVISIONS
28	01/10/89	REVISED TO SHOW REVISIONS
29	02/15/89	REVISED TO SHOW REVISIONS
30	03/10/89	REVISED TO SHOW REVISIONS
31	04/15/89	REVISED TO SHOW REVISIONS
32	05/10/89	REVISED TO SHOW REVISIONS
33	06/15/89	REVISED TO SHOW REVISIONS
34	07/10/89	REVISED TO SHOW REVISIONS
35	08/15/89	REVISED TO SHOW REVISIONS
36	09/10/89	REVISED TO SHOW REVISIONS
37	10/15/89	REVISED TO SHOW REVISIONS
38	11/10/89	REVISED TO SHOW REVISIONS
39	12/15/89	REVISED TO SHOW REVISIONS
40	01/10/90	REVISED TO SHOW REVISIONS
41	02/15/90	REVISED TO SHOW REVISIONS
42	03/10/90	REVISED TO SHOW REVISIONS
43	04/15/90	REVISED TO SHOW REVISIONS
44	05/10/90	REVISED TO SHOW REVISIONS
45	06/15/90	REVISED TO SHOW REVISIONS
46	07/10/90	REVISED TO SHOW REVISIONS
47	08/15/90	REVISED TO SHOW REVISIONS
48	09/10/90	REVISED TO SHOW REVISIONS
49	10/15/90	REVISED TO SHOW REVISIONS
50	11/10/90	REVISED TO SHOW REVISIONS
51	12/15/90	REVISED TO SHOW REVISIONS
52	01/10/91	REVISED TO SHOW REVISIONS
53	02/15/91	REVISED TO SHOW REVISIONS
54	03/10/91	REVISED TO SHOW REVISIONS
55	04/15/91	REVISED TO SHOW REVISIONS
56	05/10/91	REVISED TO SHOW REVISIONS
57	06/15/91	REVISED TO SHOW REVISIONS
58	07/10/91	REVISED TO SHOW REVISIONS
59	08/15/91	REVISED TO SHOW REVISIONS
60	09/10/91	REVISED TO SHOW REVISIONS
61	10/15/91	REVISED TO SHOW REVISIONS
62	11/10/91	REVISED TO SHOW REVISIONS
63	12/15/91	REVISED TO SHOW REVISIONS
64	01/10/92	REVISED TO SHOW REVISIONS
65	02/15/92	REVISED TO SHOW REVISIONS
66	03/10/92	REVISED TO SHOW REVISIONS
67	04/15/92	REVISED TO SHOW REVISIONS
68	05/10/92	REVISED TO SHOW REVISIONS
69	06/15/92	REVISED TO SHOW REVISIONS
70	07/10/92	REVISED TO SHOW REVISIONS
71	08/15/92	REVISED TO SHOW REVISIONS
72	09/10/92	REVISED TO SHOW REVISIONS
73	10/15/92	REVISED TO SHOW REVISIONS
74	11/10/92	REVISED TO SHOW REVISIONS
75	12/15/92	REVISED TO SHOW REVISIONS
76	01/10/93	REVISED TO SHOW REVISIONS
77	02/15/93	REVISED TO SHOW REVISIONS
78	03/10/93	REVISED TO SHOW REVISIONS
79	04/15/93	REVISED TO SHOW REVISIONS
80	05/10/93	REVISED TO SHOW REVISIONS
81	06/15/93	REVISED TO SHOW REVISIONS
82	07/10/93	REVISED TO SHOW REVISIONS
83	08/15/93	REVISED TO SHOW REVISIONS
84	09/10/93	REVISED TO SHOW REVISIONS
85	10/15/93	REVISED TO SHOW REVISIONS
86	11/10/93	REVISED TO SHOW REVISIONS
87	12/15/93	REVISED TO SHOW REVISIONS
88	01/10/94	REVISED TO SHOW REVISIONS
89	02/15/94	REVISED TO SHOW REVISIONS
90	03/10/94	REVISED TO SHOW REVISIONS
91	04/15/94	REVISED TO SHOW REVISIONS
92	05/10/94	REVISED TO SHOW REVISIONS
93	06/15/94	REVISED TO SHOW REVISIONS
94	07/10/94	REVISED TO SHOW REVISIONS
95	08/15/94	REVISED TO SHOW REVISIONS
96	09/10/94	REVISED TO SHOW REVISIONS
97	10/15/94	REVISED TO SHOW REVISIONS
98	11/10/94	REVISED TO SHOW REVISIONS
99	12/15/94	REVISED TO SHOW REVISIONS
100	01/10/95	REVISED TO SHOW REVISIONS



NO.	DATE	DESCRIPTION
1	10/15/86	ISSUED FOR CONSTRUCTION
2	11/10/86	REVISED TO SHOW REVISIONS
3	12/15/86	REVISED TO SHOW REVISIONS
4	01/10/87	REVISED TO SHOW REVISIONS
5	02/15/87	REVISED TO SHOW REVISIONS
6	03/10/87	REVISED TO SHOW REVISIONS
7	04/15/87	REVISED TO SHOW REVISIONS
8	05/10/87	REVISED TO SHOW REVISIONS
9	06/15/87	REVISED TO SHOW REVISIONS
10	07/10/87	REVISED TO SHOW REVISIONS
11	08/15/87	REVISED TO SHOW REVISIONS
12	09/10/87	REVISED TO SHOW REVISIONS
13	10/15/87	REVISED TO SHOW REVISIONS
14	11/10/87	REVISED TO SHOW REVISIONS
15	12/15/87	REVISED TO SHOW REVISIONS
16	01/10/88	REVISED TO SHOW REVISIONS
17	02/15/88	REVISED TO SHOW REVISIONS
18	03/10/88	REVISED TO SHOW REVISIONS
19	04/15/88	REVISED TO SHOW REVISIONS
20	05/10/88	REVISED TO SHOW REVISIONS
21	06/15/88	REVISED TO SHOW REVISIONS
22	07/10/88	REVISED TO SHOW REVISIONS
23	08/15/88	REVISED TO SHOW REVISIONS
24	09/10/88	REVISED TO SHOW REVISIONS
25	10/15/88	REVISED TO SHOW REVISIONS
26	11/10/88	REVISED TO SHOW REVISIONS
27	12/15/88	REVISED TO SHOW REVISIONS
28	01/10/89	REVISED TO SHOW REVISIONS
29	02/15/89	REVISED TO SHOW REVISIONS
30	03/10/89	REVISED TO SHOW REVISIONS
31	04/15/89	REVISED TO SHOW REVISIONS
32	05/10/89	REVISED TO SHOW REVISIONS
33	06/15/89	REVISED TO SHOW REVISIONS
34	07/10/89	REVISED TO SHOW REVISIONS
35	08/15/89	REVISED TO SHOW REVISIONS
36	09/10/89	REVISED TO SHOW REVISIONS
37	10/15/89	REVISED TO SHOW REVISIONS
38	11/10/89	REVISED TO SHOW REVISIONS
39	12/15/89	REVISED TO SHOW REVISIONS
40	01/10/90	REVISED TO SHOW REVISIONS
41	02/15/90	REVISED TO SHOW REVISIONS
42	03/10/90	REVISED TO SHOW REVISIONS
43	04/15/90	REVISED TO SHOW REVISIONS
44	05/10/90	REVISED TO SHOW REVISIONS
45	06/15/90	REVISED TO SHOW REVISIONS
46	07/10/90	REVISED TO SHOW REVISIONS
47	08/15/90	REVISED TO SHOW REVISIONS
48	09/10/90	REVISED TO SHOW REVISIONS
49	10/15/90	REVISED TO SHOW REVISIONS
50	11/10/90	REVISED TO SHOW REVISIONS
51	12/15/90	REVISED TO SHOW REVISIONS
52	01/10/91	REVISED TO SHOW REVISIONS
53	02/15/91	REVISED TO SHOW REVISIONS
54	03/10/91	REVISED TO SHOW REVISIONS
55	04/15/91	REVISED TO SHOW REVISIONS
56	05/10/91	REVISED TO SHOW REVISIONS
57	06/15/91	REVISED TO SHOW REVISIONS
58	07/10/91	REVISED TO SHOW REVISIONS
59	08/15/91	REVISED TO SHOW REVISIONS
60	09/10/91	REVISED TO SHOW REVISIONS
61	10/15/91	REVISED TO SHOW REVISIONS
62	11/10/91	REVISED TO SHOW REVISIONS
63	12/15/91	REVISED TO SHOW REVISIONS
64	01/10/92	REVISED TO SHOW REVISIONS
65	02/15/92	REVISED TO SHOW REVISIONS
66	03/10/92	REVISED TO SHOW REVISIONS
67	04/15/92	REVISED TO SHOW REVISIONS
68	05/10/92	REVISED TO SHOW REVISIONS
69	06/15/92	REVISED TO SHOW REVISIONS
70	07/10/92	REVISED TO SHOW REVISIONS
71	08/15/92	REVISED TO SHOW REVISIONS
72	09/10/92	REVISED TO SHOW REVISIONS
73	10/15/92	REVISED TO SHOW REVISIONS
74	11/10/92	REVISED TO SHOW REVISIONS
75	12/15/92	REVISED TO SHOW REVISIONS
76	01/10/93	REVISED TO SHOW REVISIONS
77	02/15/93	REVISED TO SHOW REVISIONS
78	03/10/93	REVISED TO SHOW REVISIONS
79	04/15/93	REVISED TO SHOW REVISIONS
80	05/10/93	REVISED TO SHOW REVISIONS
81	06/15/93	REVISED TO SHOW REVISIONS
82	07/10/93	REVISED TO SHOW REVISIONS
83	08/15/93	REVISED TO SHOW REVISIONS
84	09/10/93	REVISED TO SHOW REVISIONS
85	10/15/93	REVISED TO SHOW REVISIONS
86	11/10/93	REVISED TO SHOW REVISIONS
87	12/15/93	REVISED TO SHOW REVISIONS
88	01/10/94	REVISED TO SHOW REVISIONS
89	02/15/94	REVISED TO SHOW REVISIONS
90	03/10/94	REVISED TO SHOW REVISIONS
91	04/15/94	REVISED TO SHOW REVISIONS
92	05/10/94	REVISED TO SHOW REVISIONS
93	06/15/94	REVISED TO SHOW REVISIONS
94	07/10/94	REVISED TO SHOW REVISIONS
95	08/15/94	REVISED TO SHOW REVISIONS
96	09/10/94	REVISED TO SHOW REVISIONS
97	10/15/94	REVISED TO SHOW REVISIONS
98	11/10/94	REVISED TO SHOW REVISIONS
99	12/15/94	REVISED TO SHOW REVISIONS
100	01/10/95	REVISED TO SHOW REVISIONS

LOADING PAD PLAN  
SCALE 1/4" = 1'-0"

REVISED TO SHOW REVISIONS



W/O

# ENGINEERING CHANGE NOTICE

FILE COPY *CECN*  
Page 1 of 3

1. ECN 176589

Proj. ECN

2. ECN Category (mark one)
- Supplemental
  - Direct Revision
  - Change ECN
  - Temporary
  - Standby
  - Supersedure
  - Cancel/Void

3. Originator's Name, Organization, MSIN, and Telephone No.  
 J.E. CONNER (C-1870), 23440, T2-03, 3-3154

4. Date  
 Nov 16, 1993

5. Project Title/No./Work Order No.  
 616 LIFTING PLATFORM

6. Bldg./Sys./Fac. No.  
 616

7. Impact Level  
 3SQ

8. Document Numbers Changed by this ECN (includes sheet no. and rev.)  
 H-6-1556, Rev 3, Sht 1

9. Related ECN No(s).  
 191786

10. Related PO No.  
 N/A

- 11a. Modification Work
- Yes (fill out Bk. 11b)
  - No (NA Bks. 11b, 11c, 11d)

11b. Work Package No.  
 W/O 2H9301779F

11c. Modification Work Completed  
*JUN 13 1994*  
*D.B. Bodily 5/24/94*  
 Cog. Engineer Signature & Date

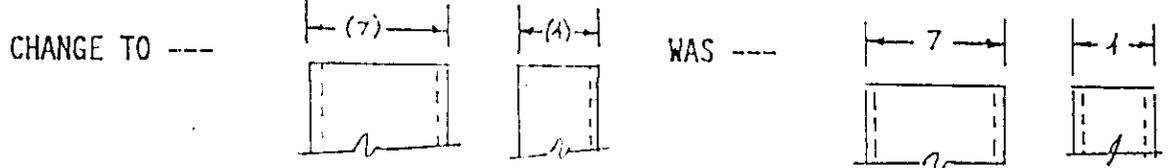
11d. Restored to Original Condition (Temp. or Standby ECNs only)  
 N/A  
 Cog. Engineer Signature & Date

12. Description of Change  
THIS ECN CHANGES ECN 191786 IN PART

(1) CHANGE THE MATERIAL/REFERENCE OF ITEM #5 (BUMPER POST), SHOWN ON ECN 191786, PAGE 3 OF 5 AS FOLLOWS:

CHANGE TO --- ASTM A 500, GR. B WAS --- ASTM A 36

(2) PAGE 3 OF 5, OF ECN 191786, DETAIL OF BUMPER POST IS AS FOLLOWS:



(3) PAGE 3 OF 5, OF ECN 191786, BUMPER GUARD ASSEMBLY DETAIL, WELDING OF ITEM #4 TO ITEM #5 IS AS FOLLOWS:



SUPPORT

- 13a. Justification (mark one)
- Criteria Change
  - Design Improvement
  - Environmental
  - As-Found
  - Facilitate Const.
  - Const. Error/Omission
  - Design Error/Omission

13b. Justification Details  
 CHANGES REQUIRED TO CLARIFY WELDING, MATERIAL AND FABRICATION REQUIREMENTS.

14. Distribution (include name, MSIN, and no. of copies)

J.E. CONNER,	T2-03	D. BODILY,	T4-03
M. LACY,	T2-08	D. POWELL,	T4-03
J. BRESINA,	T2-06	A. PINES,	T4-10
STA# 4	A1-29		
STA# 3	52-05		
STA# 20	T4-00		

RELEASE STAMP

OFFICIAL RELEASE 63  
 BY WHC

DATE NOV. 18 1993  
 Sta #6

ENGINEERING CHANGE NOTICE

15. Design Verification Required <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	18. Cost Impact		17. Schedule Impact (days)	
	ENGINEERING		CONSTRUCTION	
	Additional <input type="checkbox"/> \$ <u>N/A</u>	Additional <input type="checkbox"/> \$ <u>N/A</u>	Improvement <input type="checkbox"/> <u>N/A</u>	
	Savings <input type="checkbox"/> \$ _____	Savings <input type="checkbox"/> \$ _____	Delay <input type="checkbox"/> _____	

18. Change Impact Review: Indicate the related documents (other than the engineering documents identified on Side 1) that will be affected by the change described in Block 12. Enter the affected document number in Block 19.

SDD/DD	<input type="checkbox"/>	Seismic/Stress Analysis	<input type="checkbox"/>	Tank Calibration Manual	<input type="checkbox"/>
Functional Design Criteria	<input type="checkbox"/>	Stress/Design Report	<input type="checkbox"/>	Health Physics Procedure	<input type="checkbox"/>
Operating Specification	<input type="checkbox"/>	Interface Control Drawing	<input type="checkbox"/>	Spares Multiple Unit Listing	<input type="checkbox"/>
Criticality Specification	<input type="checkbox"/>	Calibration Procedure	<input type="checkbox"/>	Test Procedures/Specification	<input type="checkbox"/>
Conceptual Design Report	<input type="checkbox"/>	Installation Procedure	<input type="checkbox"/>	Component Index	<input type="checkbox"/>
Equipment Spec.	<input type="checkbox"/>	Maintenance Procedure	<input type="checkbox"/>	ASME Coded Item	<input type="checkbox"/>
Const. Spec.	<input type="checkbox"/>	Engineering Procedure	<input type="checkbox"/>	Human Factor Consideration	<input type="checkbox"/>
Procurement Spec.	<input type="checkbox"/>	Operating Instruction	<input type="checkbox"/>	Computer Software	<input type="checkbox"/>
Vendor Information	<input type="checkbox"/>	Operating Procedure	<input type="checkbox"/>	Electric Circuit Schedule	<input type="checkbox"/>
OM Manual	<input type="checkbox"/>	Operational Safety Requirement	<input type="checkbox"/>	ICRS Procedure	<input type="checkbox"/>
FSAR/SAR	<input type="checkbox"/>	CFD Drawing	<input type="checkbox"/>	Process Control Manual/Plan	<input type="checkbox"/>
Safety Equipment List	<input type="checkbox"/>	Cell Arrangement Drawing	<input type="checkbox"/>	Process Flow Chart	<input type="checkbox"/>
Radiation Work Permit	<input type="checkbox"/>	Essential Material Specification	<input type="checkbox"/>	Purchase Requisition	<input type="checkbox"/>
Environmental Impact Statement	<input type="checkbox"/>	Fac. Proc. Samp. Schedule	<input type="checkbox"/>	<u>N/A</u>	<input type="checkbox"/>
Environmental Report	<input type="checkbox"/>	Inspection Plan	<input type="checkbox"/>		<input type="checkbox"/>
Environmental Permit	<input type="checkbox"/>	Inventory Adjustment Request	<input type="checkbox"/>		<input type="checkbox"/>

19. Other Affected Documents: (NOTE: Documents listed below will not be revised by this ECN.) Signatures below indicate that the signing organization has been notified of other affected documents listed below.

Document Number/Revision	Document Number/Revision	Document Number/Revision
<u>N/A</u>		

20. Approvals

Signature	Date	Signature	Date
<b>OPERATIONS AND ENGINEERING</b>		<b>ARCHITECT-ENGINEER</b>	
* Cog. Engineer <u>D. Badley, Port Tel. Con.</u>	<u>11/17/93</u>	PE _____	_____
* Cog. Mgr. <u>D. Angell, Port Tel. Con.</u>	<u>11/17/93</u>	QA _____	_____
* QA <u>Michael Jacy (1-d)</u>	<u>11/17/93</u>	Safety _____	_____
* Safety <u>A. Pines, Port Tel. Con.</u>	<u>11/17/93</u>	Design _____	_____
Security _____	_____	Environ. _____	_____
Environ. _____	_____	Other _____	_____
Projects/Programs _____	_____		
Tank Waste Remediation System _____	_____		
Facilities Operations _____	_____		
Restoration & Remediation _____	_____		
Operations & Support Services _____	_____		
IRM _____	_____		
Other _____	_____		
<u>Independent Reviewer R.R. Becher</u>	<u>11/16/93</u>		
<u>Requestor R.R. Becher</u>	<u>11-17-93</u>		
		<b>DEPARTMENT OF ENERGY</b>	
		Signature or Letter Number	
		<b>ADDITIONAL</b>	
		<u>Cog. Eng. (MWE) J. [Signature]</u>	<u>11/16/93</u>

(4) PAGE 4 OF 5 OF ECN 191786, GENERAL NOTE 12 IS AS FOLLOWS:

CHANGE TO --- 12. WELD AND INSPECT PER AWS D1.1 ... ..

WAS --- 12. WELD AND INSPECT PER AWS D1.3 ... ..

ENGINEERING CHANGE NOTICE

FILE COPY

1. ECN 605639

Page 1 of 3

Proj.  
ECN

2. ECN Category (mark one) Supplemental Direct Revision Change ECN Temporary Standby Supersedure Cancel/Void	3. Originator's Name, Organization, MSIN, and Telephone No. <i>MLZWB</i> D. B. Bodily, 87250, T4-03, 373-2188		4. Date 1/17/94
	5. Project Title/No./Work Order No. <i>GIG LIFTING 2X-93-231 PLATFORM</i>	6. Bldg./Sys./Fac. No. 616	7. Impact Level 3SQ
	8. Document Numbers Changed by this ECN (includes sheet no. and rev.) See Block 12	9. Related ECN No(s). ECN 191786	10. Related PO No. N/A
11a. Modification Work <input checked="" type="checkbox"/> Yes (fill out Blk. 11b) <input type="checkbox"/> No (NA Blks. 11b, 11c, 11d)	11b. Work Package No. 2X-93-231	11c. Modification Work Complete <i>JUN 13 1994</i> <i>D. B. Bodily 5/24/94</i> Cog. Engineer Signature & Date	11d. Restored to Original Condition (Temp. or Standby ECN only) N/A  Cog. Engineer Signature & Date

12. Description of Change

Delete all-around designation on weld symbol in elevation detail "P" on drawing H-6-1556 Sht. *1* Rev. *3* *1/17/94* and add note as shown on page 3 of this ECN.

13a. Justification Criteria Change  Design Improvement  Environmental   
 (mark one)  
 As-Found  Facilitate Const.  Const. Error/Omission  Design Error/Omission

13b. Justification Details

Weld cannot be completed as shown in weld callout.

14. Distribution (include name, MSIN, and no. of copies)

*STA 3, 4, 6*  
 D.B. Bodily, T4-03, 1  
 S. Griffin, T4-03, 1  
 S. Turner, T4-06, 1  
 J. Elliott, T4-06, 1  
 STA #4 R1-29  
 STA #3 52-05  
 STA #20 T4-00

RELEASE STAMP

OFFICIAL RELEASE  
 BY WHC  
 DATE JAN 20 1994

55

*Stale*

ENGINEERING CHANGE NOTICE

605639

15. Design Verification Required [X] Yes [] No	16. Cost Impact				17. Schedule Impact (days)	
	ENGINEERING		N/A	CONSTRUCTION		N/A
	Additional	[] \$	Additional	[] \$	Improvement	[]
	Savings	[] \$	Savings	[] \$	Delay	[]

18. Change Impact Review: Indicate the related documents (other than the engineering documents identified on Side 1) that will be affected by the change described in Block 12. Enter the affected document number in Block 19.

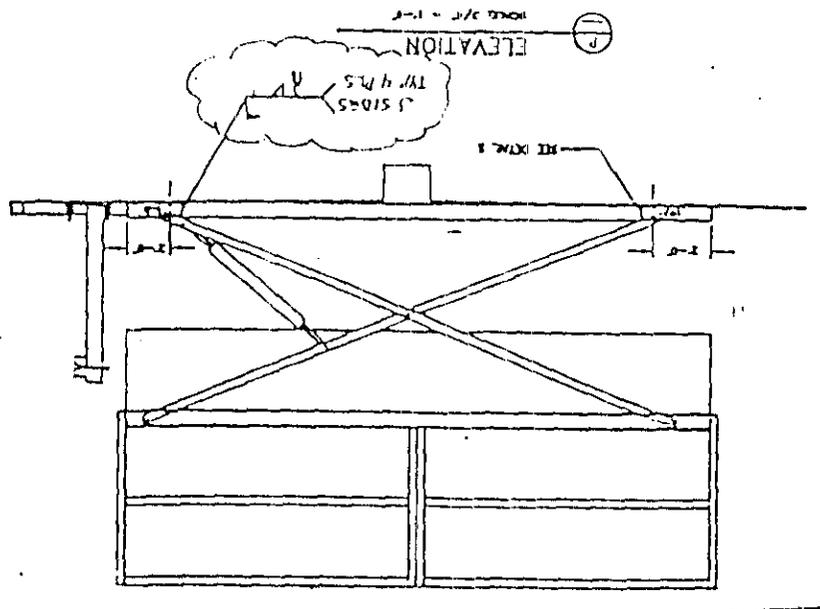
SDD/DD	[]	Seismic/Stress Analysis	[]	Tank Calibration Manual	[]
Functional Design Criteria	[]	Stress/Design Report	[]	Health Physics Procedure	[]
Operating Specification	[]	Interface Control Drawing	[]	Spares Multiple Unit Listing	[]
Criticality Specification	[]	Calibration Procedure	[]	Test Procedures/Specification	[]
Conceptual Design Report	[]	Installation Procedure	[]	Component Index	[]
Equipment Spec.	[]	Maintenance Procedure	[]	ASME Coded Item	[]
Const. Spec.	[]	Engineering Procedure	[]	Human Factor Consideration	[]
Procurement Spec.	[]	Operating Instruction	[]	Computer Software	[]
Vendor Information	[]	Operating Procedure	[]	Electric Circuit Schedule	[]
OM Manual	[]	Operational Safety Requirement	[]	ICRS Procedure	[]
FSAR/SAR	[]	IEFD Drawing	[]	Process Control Manual/Plan	[]
Safety Equipment List	[]	Cell Arrangement Drawing	[]	Process Flow Chart	[]
Radiation Work Permit	[]	Essential Material Specification	[]	Purchase Requisition	[]
Environmental Impact Statement	[]	Fac. Proc. Samp. Schedule	[]		
Environmental Report	[]	Inspection Plan	[]		
Environmental Permit	[]	Inventory Adjustment Request	[]		

19. Other Affected Documents: (NOTE: Documents listed below will not be revised by this ECN.) Signatures below indicate that the signing organization has been notified of other affected documents listed below.

Document Number/Revision	Document Number/Revision	Document Number/Revision
N/A		

20. Approvals

Signature	Date	Signature	Date
OPERATIONS AND ENGINEERING		ARCHITECT-ENGINEER	
Cog Engineer <i>[Signature]</i>	1/17/94	PE	
Cog. Mgr. <i>[Signature]</i>	1-17-94	QA	
QA <i>[Signature]</i>	1-17-94	Safety	
Safety <i>[Signature]</i>	1-17-94	Design	
Security		Environ.	
Environ.		Other	
Projects/Programs			
Tank Waste Remediation System			
Facilities Operations		DEPARTMENT OF ENERGY	
Restoration & Remediation		Signature or Letter No.	
Operations & Support Services			
IRM		ADDITIONAL	
Other Ind. Review <i>P.M. Rebovich</i>	1/17/94		



# ENGINEERING CHANGE NOTICE

1. ECN 605649

Page 1 of 3

Proj. ECN **FILE COPY**

<b>2. ECN Category (mark one)</b> Supplemental <input checked="" type="checkbox"/> [X] Direct Revision <input type="checkbox"/> [ ] Change ECN <input type="checkbox"/> [ ] Temporary <input type="checkbox"/> [ ] Standby <input type="checkbox"/> [ ] Supersedure <input type="checkbox"/> [ ] Cancel/Void <input type="checkbox"/> [ ]	<b>3. Originator's Name, Organization, MSIN, and Telephone No.</b> D.B. BODILY, 87250, T4-03, 373-2188 <i>A130A</i>	<b>4. Date</b> 8-1-94
	<b>5. Project Title/No./Work Order No.</b> INSTALL SCISSOR LIFT GUARDS	<b>6. Bldg./Sys./Fac. No.</b> 616
	<b>8. Document Numbers Changed by this ECN (includes sheet no. and rev.)</b> SEE BLOCK 12 <i>N/A 788 8/2/94</i>	<b>9. Related ECN No(s).</b> N/A
		<b>7. Approval Designator</b> N/A
		<b>10. Related PO No.</b> N/A

<b>11a. Modification Work</b> <input checked="" type="checkbox"/> [X] Yes (fill out Blk. 11b) <input type="checkbox"/> [ ] No (NA Blks. 11b, 11c, 11d)	<b>11b. Work Package No.</b> 2X-94-331	<b>11c. Modification Work Complete</b>  Cog. Engineer Signature & Date	<b>11d. Restored to Original Condition (Temp. or Standby ECN only)</b> N/A  Cog. Engineer Signature & Date
--------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------	------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------

**12. Description of Change** *1 Rev. of SBB per telecon 8/2/94 DMC*  
 Revise drawing H-6-1556 sheet ~~2, rev. 0~~ to add scissor lift personnel guard rails per clouded areas on page 3 of this ECN.

Reinstate (Redraw) H-6-1556 Sheet 2 at Revision 2 to reflect information contained in ECN-191786 and Sheet 3 of this ECN. Also add additional sheets as necessary.

<b>13a. Justification (mark one)</b> As-Found <input type="checkbox"/> [ ]	Criteria Change <input type="checkbox"/> [ ] Facilitate Const. <input type="checkbox"/> [ ]	Design Improvement <input checked="" type="checkbox"/> [X] Const. Error/Omission <input type="checkbox"/> [ ]	Environmental <input type="checkbox"/> [ ] Design Error/Omission <input type="checkbox"/> [ ]
-------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------

**13b. Justification Details**  
 Installation of the personnel guards protect operators from potential pinch points on the scissor lift.

DESIGN VERIFIED BY INDEPENDENT REVIEW.

<b>14. Distribution (include name, MSIN, and no. of copies)</b> D.B. Bodily, T4-03, 1 S. Griffin, T4-03, 1 (file copy) S. Turner, T4-06, 1 CDWS #3, S2-05, 1 CDWS #4, R1-29, 1 CDWS #20, T4-00, 1	<b>RELEASE STAMP</b> OFFICIAL RELEASE <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">12</span> BY WHC DATE AUG 03 1994 <i>Sta # 6</i>
---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------





44-40-100

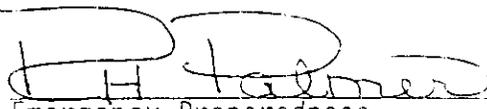
Enclosure 7

This plan covers the 616 Nonradioactive Dangerous Waste Storage Facility.

Approved:

  
Building Emergency Director

12-5-94  
Date

  
Emergency Preparedness

12-5-94  
Date

  
Hanford Fire Department

12-5-94  
Date

This document will be reviewed annually and updated as required by the Building Emergency Director and approved by the Manager of Emergency Preparedness (or delegate) and the Hanford Fire Department.

TABLE OF CONTENTS

1.0	GENERAL INFORMATION . . . . .	5
1.1	FACILITY NAME . . . . .	5
1.2	FACILITY LOCATION . . . . .	5
1.3	OWNER . . . . .	5
1.4	DESCRIPTION OF THE FACILITY AND OPERATIONS . . . . .	5
1.5	BUILDING EVACUATION ROUTING (BUILDING LAYOUT) . . . . .	5
2.0	PURPOSE . . . . .	6
3.0	BUILDING EMERGENCY ORGANIZATION . . . . .	6
3.1	BUILDING EMERGENCY DIRECTOR . . . . .	6
3.2	OTHER MEMBERS . . . . .	6
4.0	IMPLEMENTATION OF THE PLAN . . . . .	7
5.0	FACILITY HAZARDS . . . . .	7
5.1	HAZARDOUS MATERIALS . . . . .	7
5.2	INDUSTRIAL HAZARDS . . . . .	7
5.3	HAZARDOUS WASTE . . . . .	7
5.4	RADIOACTIVE MATERIALS . . . . .	8
5.5	CRITICALITY . . . . .	8
6.0	POTENTIAL EMERGENCY CONDITIONS . . . . .	8
6.1	OPERATIONAL . . . . .	8
6.1.1	Loss of Utilities . . . . .	8
6.1.2	Major Process Disruption/Loss of Plant Control . . . . .	8
6.1.3	Pressure Release . . . . .	8
6.1.4	Fire and/or Explosion . . . . .	8
6.1.5	Hazardous Material Spill . . . . .	9
6.1.6	Mixed Waste Spill . . . . .	9
6.1.7	Transportation and/or Packaging Incidents . . . . .	9
6.1.8	Unusual, Irritating, or Strong Odors . . . . .	9
6.1.9	Radiological Material Release . . . . .	10
6.1.10	Criticality . . . . .	10
6.2	NATURAL PHENOMENA . . . . .	10
6.2.1	Seismic Event . . . . .	10
6.2.2	Volcanic Eruption/Ashfall . . . . .	10
6.2.3	High Winds/Tornados . . . . .	10
6.2.4	Flood . . . . .	10
6.2.5	Range Fire . . . . .	10
6.2.6	Aircraft Crash . . . . .	10
6.3	SECURITY CONTINGENCIES . . . . .	10
6.3.1	Bomb Threat . . . . .	10
6.3.2	Hostage Situation . . . . .	11
6.3.3	Suspicious Object . . . . .	11
7.0	INCIDENT RESPONSE . . . . .	11
7.1	PROTECTIVE ACTIONS RESPONSES . . . . .	11
7.1.1	Evacuation . . . . .	11

7.1.2	Take Cover . . . . .	12
7.2	RESPONSE TO OPERATIONAL EMERGENCIES . . . . .	13
7.2.1	Loss of Utilities . . . . .	13
7.2.2	Major Process Disruption, Loss of Plant Control . . . . .	15
7.2.3	Pressure Release . . . . .	15
7.2.4	Fire and/or Explosion . . . . .	15
7.2.5	Hazardous Material, Dangerous Waste Spill . . . . .	16
7.2.6	Unusual, Irritating, or Strong Odors . . . . .	19
7.2.7	Radiological Material Release . . . . .	19
7.2.8	Criticality . . . . .	19
7.3	PREVENTION OF RECURRENCE OR SPREAD OF FIRES, EXPLOSIONS, OR RELEASES . . . . .	20
7.4	RESPONSE TO NATURAL PHENOMENA . . . . .	20
7.4.1	Seismic Event . . . . .	20
7.4.2	Volcanic Eruption/Ashfall . . . . .	21
7.4.3	High Winds/Tornados . . . . .	21
7.4.4	Flood . . . . .	21
7.4.5	Range Fire . . . . .	21
7.4.6	Aircraft Crash . . . . .	22
7.5	SECURITY CONTINGENCIES . . . . .	22
7.5.1	Bomb Threat . . . . .	22
7.5.2	Hostage Situation/Armed Intruder . . . . .	22
7.5.3	Suspicious Object . . . . .	22
8.0	TERMINATION OF EVENT, INCIDENT RECOVERY, AND RESTART OF OPERATIONS . . . . .	23
8.1	TERMINATION OF EVENT . . . . .	23
8.2	INCIDENT RECOVERY AND RESTART OF OPERATIONS . . . . .	23
8.3	INCOMPATIBLE WASTE . . . . .	24
8.4	POSTEMERGENCY EQUIPMENT MAINTENANCE AND DECONTAMINATION . . . . .	25
9.0	EMERGENCY EQUIPMENT . . . . .	26
9.1	FIXED EMERGENCY EQUIPMENT . . . . .	26
9.2	PORTABLE EMERGENCY EQUIPMENT . . . . .	26
9.3	COMMUNICATIONS EQUIPMENT/WARNING SYSTEMS . . . . .	27
9.4	PERSONAL PROTECTIVE EQUIPMENT . . . . .	29
9.5	SPILL CONTROL AND CONTAINMENT SUPPLIES . . . . .	29
9.6	EMERGENCY RESPONSE CENTER . . . . .	30
10.0	COORDINATION AGREEMENTS . . . . .	30
11.0	REQUIRED REPORTS . . . . .	30
12.0	PLAN LOCATION . . . . .	31
13.0	REFERENCES . . . . .	31
	ATTACHMENT A . . . . .	33

FIGURES

Figure 1. The 616 NRDWSF Layout, Exits, and Staging Area . . . . . 32

## 1.0 GENERAL INFORMATION

The 616 Nonradioactive Dangerous Waste Storage Facility (NRDWSF) is located on the Hanford Site, a 560 square mile U.S. Department of Energy (DOE) reservation in southeastern Washington State. The 616 Nonradioactive Dangerous Waste Storage Facility is located in the west portion of the 600 Area near the north end of the Hanford Site.

1.1 FACILITY NAME: U.S. Department of Energy Hanford Site  
616 Nonradioactive Dangerous Waste Storage Facility

1.2 FACILITY LOCATION: Benton County, Washington; within the 600 Area.

The facility covered by this plan is the 616 NRDWSF.

1.3 OWNER: U.S. Department of Energy  
Richland Operations Office  
825 Cadwin Avenue  
Richland, Washington 99352

FACILITY MANAGER: Westinghouse Hanford Company  
P.O. Box 1970  
Richland, Washington 99352

## 1.4 DESCRIPTION OF THE FACILITY AND OPERATIONS

The 616 NRDWSF is designed and used for the receipt and storage of nonradioactive dangerous waste generated on the Hanford Site and for the preparation of shipments to permitted offsite treatment, storage, or disposal facilities. Sampling for waste verification may also be performed. The 616 NRDWSF encompasses an area of approximately 7,700 square feet. To support safe response to potential spills, the 616 NRDWSF features independent collection trenches, sloped floors, and curbing.

## 1.5 BUILDING EVACUATION ROUTING (BUILDING LAYOUT)

Figure 1 provides identification of emergency evacuation routes from the 616 NRDWSF to the staging area(s).

The primary staging area for the 616 NRDWSF is located 200 feet (61 meters) east of the main entrance. If it becomes necessary to evacuate the primary staging area, the staging area manager or the BED shall direct personnel to an alternate staging area or destination.

## 2.0 PURPOSE

This plan describes both the facility hazards and the basic responses to upset and/or emergency conditions. "Emergency" as used in this document includes events meeting the Washington Administrative Code (WAC) 173-303 definition of Emergency as well as Department of Energy (DOE) Order 5000.3B categories of Unusual Occurrence and Emergency. These events include spills or releases as a result of processing, fires and explosions, transportation activities, movement of materials, packaging, storage of hazardous materials and natural and security contingencies. When used in conjunction with the "Hanford Facility Contingency Plan," DOE/RL-93-75, this plan meets the requirements for contingency planning as required by WAC 173-303.

## 3.0 BUILDING EMERGENCY ORGANIZATION

### 3.1 BUILDING EMERGENCY DIRECTOR

The Building Emergency Director (BED) or his/her designated alternate has overall responsibility for implementing this plan. The BED has the responsibilities of the Emergency Coordinator as discussed in WAC 173-303-360 and is also the Event Commander for facility related events. A list of all BEDs and alternates and their work and home telephone numbers is maintained by Emergency Preparedness. The list is distributed to various people and locations throughout the Hanford Site. The BEDs have the authority to commit all necessary resources (both equipment and personnel) to respond to any emergency. Additional responsibilities have been delegated to Hanford Fire Department personnel who are authorized to act for the BED when the BED is absent. These Hanford Fire Department personnel have the authority to commit all necessary resources (both equipment and personnel) to respond to any emergency.

### 3.2 OTHER MEMBERS

As a minimum, the BED appoints and trains individuals to perform as Personnel Accountability Aides and Staging Area Managers. The accountability aides are responsible for facilitating the implementation of protective actions (evacuation or take cover) and for facilitating the accountability of personnel after the protective actions have been implemented. Staging Area Managers are responsible for coordinating/conducting activities at the staging area. In addition, the BED may identify additional support personnel (Health Physics [HP], Maintenance, Engineering, Hazardous Material Coordinators, etc.) to be part of the building emergency organization.

The building emergency organization for the 616 NRWSEF is listed in a separate publication found at the facility.

#### 4.0 IMPLEMENTATION OF THE PLAN

To meet the requirements of the WAC, this plan will be considered to be implemented when the BED has determined that a release, fire, or explosion that could threaten human health or the environment (WAC 173-303 Emergency) has occurred at the facility. An incident requiring evacuation of personnel or the summoning of emergency response units will not necessarily indicate that the plan has been implemented. The incident classification process for a WAC 173-303 Emergency is described in DOE/RL-93-75, *Hanford Facility Contingency Plan*.

Under the DOE guidance, this plan will be considered implemented whenever the BED determines that one of the incidents listed in subsection 6.0 has or will occur and that the severity is or will be such that there is a potential to endanger human health or the environment (DOE Unusual Occurrence or Emergency). The 616 NRDWSF will implement this plan through specific implementing procedures. These procedures are referenced where appropriate and a list of the procedures is included as Attachment A.

The BED must assess each incident to determine the response necessary to protect the personnel, facility, and the environment. If assistance from Patrol, Fire, or ambulance units is required, the Hanford Emergency Response Number (911) must be used to contact the Patrol Operations Center and request the desired assistance. To request other resources or assistance from outside the facility, the Patrol Operations Center business number is used (373-3800) to request contact of the Emergency Duty Officer.

#### 5.0 FACILITY HAZARDS

Hazards at the 616 NRDWSF Facility potentially include chemical, ergonomic, and other industrial hazards.

##### 5.1 HAZARDOUS MATERIALS

Hazardous materials used at the 616 NRDWSF may include fuels, pesticides, cleaning products, paint, etc. They are stored as indicated on Figure 1.

##### 5.2 INDUSTRIAL HAZARDS

Hazards associated with industrial accidents include the potential for injuries from drum handling, moving equipment, falls, or exposure to hazardous chemicals.

##### 5.3 HAZARDOUS WASTE

Hazardous wastes at the 616 NRDWSF are specified on Figure 1. Solid Waste Management (SWM) is responsible for maintaining the waste in a compliant manner.

#### 5.4 RADIOACTIVE MATERIALS

Radioactive materials ARE NOT used and/or stored in the 616-NRDWSF.

#### 5.5 CRITICALITY - N/A

### 6.0 POTENTIAL EMERGENCY CONDITIONS

Potential emergency conditions may fall into one of three basic categories: operational (process upsets, fires and explosions, loss of utilities, spills, and releases), natural phenomena (e.g., earthquakes), and security contingencies (bomb threat, hostage situation, etc.). The following are conditions that may lead to an emergency situation (WAC or DOE defined) at the 616 NRDWSF and require the implementation of this plan.

#### 6.1 OPERATIONAL

##### 6.1.1 Loss of Utilities

1. Loss of Electricity. Hazards associated with a loss of electricity include potential exposure to toxic chemical vapors/particulates due to shutdown of the ventilation system.
2. Loss of Water. Loss of water could disable the wet-pipe sprinkler system, resulting in an increased fire hazard.
3. Loss of Ventilation. Loss of ventilation could result in exposure to toxic chemical vapors/particulates in the event of a hazardous material spill/release.

##### 6.1.2 Major Process Disruption/Loss of Plant Control - N/A

##### 6.1.3 Pressure Release - N/A

##### 6.1.4 Fire and/or Explosion

Fire hazards include exposure to toxic chemicals, smoke inhalation, burns, explosion, and damage to equipment. Sealed containers also could become pressure hazards.

#### 6.1.5 Hazardous Material Spill

Hazardous material storage and control are managed by plant operating procedures (POP) and Material Safety Data Sheets (MSDS), which are located in the 616-NRDWSF Packaging Materials/Handling Equipment Area. Spills or releases could result in the conditions described in the following section.

1. Spill of Hazardous Material. Hazards associated with the spill of a hazardous material include exposure to corrosive and toxic materials or fumes and potential environmental damage.
2. Fires or Explosions Involving Hazardous Material. A fire or explosion in the 616-NRDWSF could produce flying objects and cause the release of hazardous waste to the air or soil.
3. Toxic Fumes Hazards. Hazards associated with toxic fumes include potential exposure to personnel and the environment.
4. Reactive Chemical/Corrosive Material Hazards. Improper segregation of incompatible materials could cause an explosive reaction. Hazards are the same as for spills.
5. Thermal Reactions/Hazards. Thermal reactions could cause burns, chemical burns, and toxic fumes, and cause pressure hazards in sealed containers.
6. Flammable Material/Liquids Hazards. Hazards associated with flammable materials and liquids include fire, explosion, and release of hazardous waste.
7. Asbestos Release. The 616-NRDWSF structure does not contain asbestos, but dangerous waste containing asbestos could be stored inside the drums stored within the structure. Release of friable asbestos waste could result in an inhalation hazard, if present.

#### 6.1.6 Mixed Waste Spill - N/A

#### 6.1.7 Transportation and/or Packaging Incidents

When container integrity is questionable, initial steps may be taken to prevent a release, such as overpacking.

#### 6.1.8 Unusual, Irritating, or Strong Odors

Sampling that includes opening hazardous waste containers may result in the release of airborne chemical hazards, which represent a potential hazard. Call Odor Response (pager 85-8971) for unusual, irritating, or strong odors at 616 Facility.

6.1.9 Radiological Material Release - N/A

6.1.10 Criticality - N/A

6.2 NATURAL PHENOMENA

6.2.1 Seismic Event

Depending on the magnitude of the event, severe structural damage can occur resulting in serious injuries or fatalities and the release of hazardous materials/wastes. Damaged electrical circuits and wiring could result in the initiation of multiple fires.

6.2.2 Volcanic Eruption/Ashfall

Though not expected to cause structural damage, the ash could cause shorts in electrical equipment and plug ventilation system filters.

6.2.3 High Winds/Tornados

High winds or tornados may cause structural damage to systems containing hazardous materials/wastes resulting in a release to the environment.

6.2.4 Flood - N/A

6.2.5 Range Fire

The hazards associated with the range fire include those associated with a building fire plus potential site access restrictions and travel hazards such as poor visibility.

6.2.6 Aircraft Crash

In addition to the potential serious injuries or fatalities, an aircraft crash could result in the direct release of hazardous materials/wastes or cause a fire that could lead to the release.

6.3 SECURITY CONTINGENCIES

6.3.1 Bomb Threat

A bomb threat may be received by anyone who answers the telephone or receives mail. The major effect on the facility is that it will need to perform an emergency shutdown in order to be evacuated. If a bomb explodes, the effects are the same as those discussed under fire and explosion.

### 6.3.2 Hostage Situation

A hostage situation can pose an emergency situation if there is the potential to adversely impact the facility. This can be as a result of losing facility control (operators removed from their stations) or when the situation results in the coercion of an employee to take some malevolent action.

### 6.3.3 Suspicious Object

The major effect on the facility is that it will need to perform an emergency shutdown in order to be evacuated.

## 7.0 INCIDENT RESPONSE

The initial response to any emergency will be to immediately protect the health and safety of persons in the immediate area. Identification of released material is essential to determine appropriate protective actions. Containment, treatment, and disposal assessment will be the secondary responses.

The following sections describe the process for implementing basic protective actions as well as descriptions of response actions for the events listed in subsection 6.0. The Hanford Facility Contingency Plan (DOE/RL-93-75) provides a description of generic incident responses, describes the process for assessing and identifying the hazardous materials and/or dangerous waste, and describes the process for categorizing and classifying an incident.

### 7.1 PROTECTIVE ACTIONS RESPONSES

#### 7.1.1 Evacuation

The 616-NRDWSF facility personnel must be notified immediately if any conditions that affect occupants or operations are discovered.

If an evacuation is ordered or the evacuation siren sounds, employees should proceed to the:

616 NRDWSF STAGING AREAS	AREA	LOCATION
PRIMARY STAGING AREA	616 Building	200 feet east of main entrance
SECONDARY STAGING AREA	615 Building	Announced by the Building Emergency Director

If it becomes necessary to evacuate the primary staging area, the staging area manager or the BED shall direct personnel to an alternate staging area or destination.

For an area evacuation, the following steps should be conducted concurrently and directed by the building emergency director, if possible. Area evacuations are either rapid or controlled; differences between them are pointed out as follows:

AREA EVACUATION PROCEDURE
Halt any operations or work and place the building in a safe condition. Use emergency shutdown procedures for rapid evacuation.
Use whatever means are available (PA system, bullhorns, runners, etc.) to pass the evacuation information to employees.
Issue the order to evacuate by any available means.
Evacuate personnel to the staging area; group employees as follows: those with potentially contaminated protective clothing, those with keys immediately available for vehicles, those needing rides.
Conduct personnel accountability. Report personnel accountability results to the Northern Area Emergency Control Center (ECC) (373-3876, 373-1786, or 544-8085).
Relay pertinent evacuation information (routes, destination etc.) to drivers.
Dispatch vehicles as soon as the vehicles are loaded.
Report status to the ECC, request additional transportation (provided by taxi dispatcher) if required, and report if any people remain who are performing late shutdown duties.

## 7.1.2 Take Cover

### 7.1.2.1 Take Cover Response

When the Take Cover Alarm is activated, personnel should take cover in the nearest building. The following actions should be taken or considered:

- Close all exterior doors and windows
- Report your location to line manager or BED
- If possible, secure (turn off) unnecessary electronic or electrical equipment
- Turn off cell and office area ventilation systems.

## 7.2 RESPONSE TO OPERATIONAL EMERGENCIES

### 7.2.1 Loss of Utilities

#### 7.2.1.1 Utility Disconnect Plan For 616 NRDWSF

Use these steps to place the utilities in a safe and secure condition when an emergency has been declared or when directed by the BED.

#### 1. Heating, Ventilation, and Air Conditioning

- a. Inspect all waste storage cells. If any containers are leaking or ruptured, notify management.
- b. After inspecting containers, close all cell doors inside the NRDWSF.
- c. Open all exterior doors.
- d. Evacuate storage areas.
- e. If ventilation loss will be longer than 1 hour, evacuate the building (unless shutdown is part of the take cover alarm response for this facility).
- f. Maintain surveillance of the building to prevent unauthorized personnel entry.
- g. Proceed to roof or main panel marked "Heat Pump" near men's room.
- h. Locate ON/OFF switch.
- i. Place switch in OFF position.
- j. Do not reenter the building until the ventilation system has been reestablished and operating for at least 30 minutes.

#### 2. Electrical

*NOTE: This building should be shut down only in an extreme emergency.*

- a. Follow item 1, above, instructions for shutdown of the ventilation system.
- b. Proceed to outside the northeast corner wall or to the hallway near the men's room.
- c. Locate the main electrical distribution panel labeled "Main Switch Transformer."

- d. Locate the ON/OFF switch labeled "2 of 2."
- e. Place switch in the OFF position.
- f. Do not reenter the building until power and ventilation has been restored for at least 30 minutes.

### 3. Fire Sprinkler System

*NOTE: This building should be shut down only in an extreme emergency and preferably by the Hanford Fire Department.*

- a. Proceed to the outside of the south wall of the 616 Building.
- b. Locate the red valve (inside of four red posts).
- c. Break the seal with the attached wrench.
- d. Turn the valve to the SHUT position.

### 4. Sanitary Water/Sewer

- a. Proceed to women's change room.
- b. Locate the main valve on the south wall labeled "Sanitary Water Shutoff."
- c. Turn valve until closed.

#### 7.2.1.2 Loss of Electricity

Loss of electricity will result in loss of operation of the building ventilation system.

1. Evacuate the building.
2. Maintain surveillance of the building to prevent unauthorized personnel entry.
3. Notify the BED.
4. If instructed by management, close all cell doors inside the building, and open all exterior doors.
5. Do not reenter the building until the electrical/ventilation systems have been reestablished and have been operating for at least 30 minutes.

#### 7.2.1.3 Loss of Water

1. Notify the BED.
2. Notify the Hanford Fire Department.
3. Establish a fire watch.
4. Notify appropriate maintenance personnel for repair.

#### 7.2.1.4 Loss of Ventilation

Follow the subsection 7.2.1.2 instructions for Loss of Electricity.

#### 7.2.2 Major Process Disruption/Loss of Plant Control - N/A

#### 7.2.3 Pressure Release - N/A

#### 7.2.4 Fire and/or Explosion

In the event of a fire, the discoverer activates a fire alarm and calls 911. Automatic initiation of a fire alarm (through the smoke detectors and sprinkler systems) also is possible. Trained personnel may use portable fire extinguishers for small fires. Personnel will use their best judgment whether to fight a fire or to evacuate. Under no circumstances will personnel remain to fight a fire if unusual hazards exist.

1. On actuation of the fire alarm, personnel shut down equipment, secure waste, and lock up classified documents (or carry the documents with them) ONLY if time permits. The alarm automatically signals the Hanford Fire Department and the Hanford Patrol Operations Center.
2. Personnel leave the area/building by the nearest safe exit and proceed to the designated staging area for accountability unless they are told otherwise.
3. The BED proceeds directly to the scene, obtains all necessary information pertaining to the incident, and meets the Hanford Fire Department or sends a representative to meet them and establish an Event Command Post.
4. The BED informs the site organization as to the extent of the emergency (including estimates of dangerous waste quantities released to the environment).
6. If operations are stopped in response to the fire, the BED ensures that systems are monitored for leaks, pressure buildup, gas generation, and ruptures.
7. Hanford Fire Department fire fighters extinguish the fire.
8. The BED ensures that all emergency equipment is cleaned and fit for its intended use following completion of cleanup procedures.

## 7.2.5 Hazardous Material, Dangerous Waste Spill

Spills can result from many sources including leaks, container spills or leaks, damaged packages or shipments, or personnel error. These spills normally fall into one of two categories: minor spills or major spills. The response to the two types are discussed below.

### 7.2.5.1 Response To Minor Spills

Facility personnel generally perform immediate cleanup of minor spills or releases using sorbents and emergency equipment. Personnel detecting such spills or releases contact the BED, who ensures that the Hanford Fire Department, appropriate regulatory support personnel, and Health Physics personnel (if applicable) are notified. Response to minor spills generally does not require the implementation of this plan.

A spill or release of hazardous material or dangerous or mixed waste is considered "minor" if all of the following are true:

- The spill does not threaten the health and safety of occupants of the building, i.e., an evacuation is not necessary
- The spill is small in size
- The composition of the material or waste is known or can be quickly determined from label, manifest, MSDSs, or disposal request information.

If one or more of the foregoing conditions are not met, responses are performed as outlined below.

### 7.2.5.2 Response To Major Spills

The discoverer performs the following actions for a major release:

1. Notifies facility personnel (including BED) of discovery of spill or release by sounding the appropriate alarm, using the public address (PA) system, etc.
2. Initiates notifications to the Hanford Fire Department by calling 911, and provides all known information.
3. Takes action to contain and/or to stop the spill or container leak if all of the following are true:
  - The identity of the substance(s) involved is known
  - Appropriate protective equipment and control/cleanup supplies, e.g., absorbents, are readily available

- Discoverer can safely perform the action(s) without assistance, or assistance is readily available from other trained personnel.

If any of the above conditions are not met or there is any doubt, the discoverer evacuates the area and remains outside, upwind of the spill, pending the arrival of the BED. The discoverer remains available for consultation with the BED, Hanford Fire Department, or other emergency response personnel and restricts access to the area until the arrival of the BED.

The BED performs or arranges for the following:

1. Establishes a command post at a safe location, and coordinates further spill mitigation activities.
2. Obtains all available information pertaining to the incident and determines if the incident requires implementation of the contingency plan.
3. Arranges for care of any injured persons.
4. Maintains access control at the incident site by keeping unauthorized personnel and vehicles away from the area. Security personnel can be used to assist in site control if control of the boundary is difficult (e.g., repeated incursions). In determining ~~controlled-access areas, considers environmental~~ factors such as wind velocity and direction.
5. Arranges for proper remediation of the incident after evaluation.
6. Remains available for fire, patrol, and other authorities on the scene, and provides all required information.
7. Enlists the assistance of alternate BED(s), if response activities are projected to be long term.
8. Ensures the use of proper protective equipment, remedial techniques, transfer procedures, (including ignition source control [e.g., nonsparking tools, grounding containers, isolation of ignition sources, use of explosion-proof electrical equipment, etc.] for flammable or reactive spills), and decontamination procedures by all involved personnel, if remediation is performed by facility personnel.
9. Remains at the scene to oversee activities and to provide information, if remediation is performed by the Hanford Fire Department Hazardous Materials Response Team or other response teams.
10. Ensures proper containerization, packaging, and labeling of recovered spill materials and overpacked containers.

*NOTE - Overpacked containers are marked and labeled in the same manner as the contents. All containers of spill debris, recovered product, etc., are managed in the same manner as waste containers. Overpacks in use are marked with information pertaining to their contents and noted as to whether the container inside the overpack is leaking or is in good condition.*

11. If operations are stopped in response to the release, ensures that systems are monitored for leaks, pressure buildup, gas generation, and ruptures.
12. Ensures decontamination (or restocking) and restoration of emergency equipment used in the spill remediation before resuming operations
13. Provides required reports after the incident, in accordance with DOE/RL-93-75.

#### 7.2.5.3 Transportation Incidents

The discoverer may also take the following actions for leaks or spills resulting from a hazardous materials/wastes transportation incident if the actions can be performed without jeopardizing personnel safety, as appropriate.

- Determines the nature of incident
  - Personnel injuries
  - Hazardous material/waste spill with fire
  - Hazardous material/waste spill without fire.
- Assists injured personnel.
- Initiates notifications to the single point-of-contact by any means available (telephone, radio, passing motorist, etc.) to request assistance from the Hanford Fire Department (Emergency Coordinator/Event Commander for these type of events), Hanford Patrol, and medical personnel.
- Remains in a safe location and attempts to isolate the area to prevent inadvertent personnel access.

#### 7.2.5.4 Receipt of Damaged or Unacceptable Shipments

When a damaged shipment of hazardous material or dangerous waste arrives at the 616 NRDWSF and the shipment is unacceptable for receipt, the damaged shipment should not be moved. Personnel instead perform the following steps.

1. If the release from damaged package is a "minor" spill under the criteria of subsection 7.2.5.1, the following actions are performed.
  - a. Notify the BED, the Hanford Fire Department, and the single point-of-contact to advise of the situation. The BED responds and assists in the evaluation of, and response to, the incident.
  - b. Notify the generating unit of the damaged shipment, and request any information necessary to assist in responding to the "minor" spill
  - c. Proceed with remedial action, including overpacking damaged containers, cleanup of spilled material, or other necessary actions to contain the spill.
2. Implement subsection 7.2.5.2 if the release does not meet the criteria of a "minor" spill as noted previously, or the extent of the spill cannot be determined.

#### 7.2.6 Unusual, Irritating, or Strong Odors

If an unusual, irritating, or strong odor is detected and the discoverer believes that the odor might be the result of an uncontrolled release of a toxic or dangerous material, the discoverer performs the following:

- Activates the building evacuation alarm or fire alarm system to evacuate the building
- Notifies the BED.

If the discoverer knows of the source and scope of the release, this information is reported quickly to the BED. Measures are taken to contain the release as described in subsection 7.2.5 and ventilate the area, if safe and advisable to do so.

If an unusual odor is detected within the building or structure and the source of the odor is unknown, notify Odor Response (pager 85-8971).

#### 7.2.7 Radiological Material Release - N/A

#### 7.2.8 Criticality - N/A

### 7.3 PREVENTION OF RECURRENCE OR SPREAD OF FIRES, EXPLOSIONS, OR RELEASES

The BED, in coordination with emergency response organizations, takes the steps necessary to ensure that a secondary release, fire, or explosion does not occur. The following actions are taken:

1. Isolates the area of the initial incident by shutting off power, closing off ventilation systems, etc., to minimize the spread of a release and/or the potential for a fire or explosion.
2. Inspects containment for leaks, cracks, or other damage.
3. Inspects for toxic vapor generation.
4. Removes released material and waste remaining inside of containment structures as soon as possible.
5. Contains and isolates residual waste material using dikes and adsorbents.
6. Covers or otherwise stabilizes areas where residual released materials remain to prevent migration or spread from wind or precipitation runoff.
7. Installs new structures, systems, or equipment to enable better management of hazardous materials or dangerous waste.
8. Reactivates adjacent operations in affected areas only after cleanup of residual waste materials is achieved.

### 7.4 RESPONSE TO NATURAL PHENOMENA

#### 7.4.1 Seismic Event

The WHC emergency response organization's primary role in a seismic event is coordinating the initial response to injuries, fires, and fire hazards and acting to contain or control hazardous material/waste releases.

Individuals should remain calm and stay away from windows, steam lines, and hazardous material/waste storage locations. Once the shaking has subsided, individuals should evacuate carefully and assist those needing help. The location of any trapped individuals is reported to the BED or is reported to 911.

The BED takes whatever actions are necessary to minimize damage and personnel injuries. Actions include:

1. Coordinating searches for personnel and potential hazardous conditions (fires, spills, etc.)
2. Conducting accountability

3. Securing utilities and facility operations.
4. Arranging rescue efforts, and notifying 911 for assistance.
5. Assembling damage assessment teams.
6. Determining if hazardous materials were released.
7. Determining current local meteorological conditions.
8. Warning other facilities and implement protective actions if release of hazardous materials poses a danger.
9. Providing personnel and resource assistance to other facilities, if required and possible.

#### 7.4.2 Volcanic Eruption/Ashfall

When notified of an impending ashfall, the BED will implement measures to minimize the impact of the ashfall, such as:

1. Installing filter media over building ventilation intakes.
2. Installing filter media or protective coverings on outdoor equipment that may be adversely affected by the ash (diesel generators, equipment rooms etc.).
3. Shutting down some or all operations and processes.
4. Sealing secondary use exterior doors.
5. Releasing all but essential personnel to go home.

If as a result of the ashfall other emergency conditions arise (e.g., fires due to electrical shorts or lightning), response is as described in other paragraphs of this section

#### 7.4.3 High Winds/Tornados

Upon notification of impending high winds, the BED takes steps necessary to secure all outdoor waste and hazardous material/waste containers and storage locations. All doors and windows are shut, and personnel are warned to use extreme caution when entering or exiting the building.

#### 7.4.4 Flood - N/A

#### 7.4.5 Range Fire

Responses to range fires are handled by preventive measures (i.e., keeping hazardous material and waste accumulation areas free of combustible materials such as weeds and brush). If a range fire breaches the facility boundary, the response is as described in subsection 7.2.4.

#### 7.4.6 Aircraft Crash

The response to an aircraft crash is the same as that listed in subsection 7.2.5.3 for responding to transportation incidents.

### 7.5 SECURITY CONTINGENCIES

#### 7.5.1 Bomb Threat

##### 7.5.1.1 Telephone Threat

Individuals receiving telephoned threats try to gain as much information as possible from the caller (using the Bomb Threat Checklist if available). Upon conclusion of the call, notify the BED and Security via a 911 call.

The BED evacuates the facility and queries personnel at the staging area regarding any suspicious objects on the facility.

When Security personnel arrive, follow their instructions.

##### 7.5.1.2 Written Threat

Receivers of written threats handle the letter as little as possible. Notify the BED and Security. Depending on the content of the letter, the facility may or may not be evacuated. The letter is turned over to Security personnel, and their instructions are then followed.

#### 7.5.2 Hostage Situation/Armed Intruder

The discoverer of a hostage situation or armed intruder reports it to 911 and to the BED, if possible. The BED, after conferring with Security personnel, may covertly evacuate areas of the facility not observable by the hostage taker(s)/intruder. No alarms will be sounded.

Security will determine the remaining response actions and will activate the Hostage Negotiating Team, if necessary.

#### 7.5.3 Suspicious Object

The discoverer of a suspicious object reports it to the BED and to 911, if possible, and ensures that the object is not disturbed.

The BED will evacuate the facility and (based on the description provided by the discoverer) attempt to determine the identity or owner of the object. This may be done by questioning facility personnel at the staging area.

If the identity/ownership of the object cannot be determined, then Security will assume command of the incident. An Emergency Ordinance Team will be dispatched to the facility to properly dispose of the device.

## 8.0 TERMINATION OF EVENT, INCIDENT RECOVERY, AND RESTART OF OPERATIONS

### 8.1 TERMINATION OF EVENT

The BED declares the termination of an event. However, if additional emergency centers are activated, only the highest activated level of the emergency organization, in conjunction with the BED, will declare that an event has ended. If the RL-Emergency Action and Coordination Team (EACT) is activated, only the RL director officially terminates the event. In all cases, however, the BED must be consulted before reentry is initiated.

### 8.2 INCIDENT RECOVERY AND RESTART OF OPERATIONS

A recovery plan is developed when necessary. A recovery plan is needed following an event when further risk could be introduced to personnel, the facility, or the environment through recovery action and/or to maximize the preservation of evidence. Depending on the magnitude of the event and the effort required to recover from it, recovery planning may involve personnel from RL and other contractors. If a recovery plan is required, it is reviewed by appropriate personnel and approved by a Recovery Manager before restart. Restart of operations is performed in accordance with the approved plan.

If this plan was implemented for a WAC emergency (see subsection 4.0), the Washington State Department of Ecology (Ecology) must be notified before operations can resume. Section 9.0 of DOE/RL-93-75 discusses different reports to outside agencies. This notification is in addition to those required reports and must include the following:

1. There are no incompatibility issues with the waste and released materials from the incident
2. All the equipment has been clean, fit for its intended use, and placed back into service. The notification may be made via telephone conference. Additional information that Ecology requests regarding these restart conditions may be included in the required 15-day report identified in DOE/RL-93-75.

For emergencies not involving activation of the ECC, the BED ensures that conditions are restored to normal before operations are resumed. If the Hanford Site Emergency Organization was activated and the emergency phase is complete, a special recovery organization could be appointed at the discretion of RL to restore conditions to normal. This process is detailed in RL and WHC emergency procedures. The makeup of this organization depends on the extent of the damage and its effects. The onsite recovery organization will be appointed by the appropriate contractor's emergency director.

### 8.3 INCOMPATIBLE WASTE

After an event resulting in a hazardous material/waste release, the BED or the onsite recovery organization ensures that no waste that might be incompatible with the released material is treated, stored, and/or disposed of until cleanup is completed. Cleanup actions are taken by facility personnel or other assigned personnel. Actions to be taken might include, but are not limited to, any of the following:

- Neutralization of corrosive spills
- Chemical treatment of reactive materials to reduce hazards
- Overpacking or transfer of contents from leaking containers
- Use of sorbents to contain and/or absorb leaking liquids for containerization and disposal
- Decontamination of solid surfaces impacted by released material, e.g., intact containers, equipment, floors, containment systems, etc.
- Disposal of contaminated porous materials that cannot be decontaminated and any contaminated soil
- Containerizing and sampling of recovered materials for classification and determination of proper disposal technique
- Followup sampling of decontaminated surfaces to determine adequacy of cleanup techniques, as appropriate.

Waste from cleanup activities is designated and managed as newly generated waste. A field check for compatibility before storage is performed, as necessary. Incompatible wastes are not placed in the same container. Containers of waste are placed in storage areas appropriate for their compatibility class.

If incompatibility of waste was a factor in the incident, the BED or the onsite recovery organization ensures that the cause is corrected. Examples include modification of an incompatibility chart or increased scrutiny of waste from a generating unit when incorrectly designated waste caused or contributed to an incident.

#### 8.4 POSTEMERGENCY EQUIPMENT MAINTENANCE AND DECONTAMINATION

All equipment used during an incident is decontaminated (if practicable) or disposed of as spill debris. Decontaminated equipment is checked for proper operation before storage for subsequent use. Consumables and disposed materials are restocked. Fire extinguishers are recharged or replaced.

The BED ensures that all equipment is cleaned and fit for its intended use before operations are resumed. Depleted stocks of neutralizing and absorbing materials are replenished, self-contained breathing apparatus are cleaned and refilled, protective clothing is cleaned or disposed of and restocked, etc.

Factors to consider when establishing an equipment and personnel decontamination station are as follows:

- Water supplies
- Containment/catch basins and/or systems
- Staff necessary to accomplish proper decontamination
- Protective clothing
- Decontamination supplies (buckets, brushes, soap, chemicals as needed)
- Risk to personnel
- Weather conditions; i.e., severe heat, cold (current and forecasted)
- Toxicity of material
- Porosity of equipment to be decontaminated
- Disposal requirements of decontamination rinse
- Use of controlled zones to maintain contamination control.

### 9.0 EMERGENCY EQUIPMENT

Hanford Site emergency resources and equipment are described and listed in DOE/RL-93-75, Section 7.

#### 9.1 FIXED EMERGENCY EQUIPMENT

FIXED EMERGENCY EQUIPMENT		
TYPE	LOCATION	CAPABILITY
Wet-pipe overhead sprinkler system	Throughout building	Activated by heat. Designed to meet Extra Hazard, Group 2, NFPA requirements
Fire hydrant	Southeast exterior corner of the building enclosed in four yellow posts	Supply water for fighting fires
Eye wash/shower stations	Two units - one in combustible cell, and one in Packaging and Sampling Room	Immediate decontamination of personnel exposed to hazardous materials

#### 9.2 PORTABLE EMERGENCY EQUIPMENT

PORTABLE EMERGENCY EQUIPMENT		
TYPE	LOCATION	CAPABILITY
Fire extinguishers	Flammable Cell 1B Combustible Cell Hall near Change Rooms and Office Packaging and Material Handling Room	ABC Type
Dry Chemical	(See Above)	ABC Type

9.3 COMMUNICATIONS EQUIPMENT/WARNING SYSTEMS

COMMUNICATIONS EQUIPMENT		
SIREN SYSTEM		
Sirens are operated manually from the 616 NRDWSF Office		
SIGNAL	MEANING	ACTIONS
Steady Siren	Evacuate	Evacuate as directed
Waivering Siren	Take Cover	Seek shelter immediately
FIRE ALARM SYSTEM		
TYPE	LOCATION	CAPABILITY
Fire Alarm Button	Outside main entrance to the 616 NRDWSF	Alerts building occupants and the fire station
Fire Alarm Pull Box	In flammable cell 1B, acid cell, combustible cell, caustic cell, oxidizer cell, packaging room, and inside the main entrance	Alert occupants and fire station
OTHER COMMUNICATIONS EQUIPMENT		
Loss of ventilation indicator lights	616 NRDWSF Office	Indicate when the office and cell ventilation systems are operable
Crash Alarm Telephone System	Position No. W-34 in the 616 Facility  Identified with <u>yellow</u> label on the handle	Telephone system used to disseminate emergency messages; dialing a single number connects teh initiator to a predetermined number of telephones
Public Address (PA) System	616 Facility	Used for incidents that affect only a limited area near the incident
Telephones Radios	616 Office	Used for communication

9.4 PERSONAL PROTECTIVE EQUIPMENT

PROTECTIVE EQUIPMENT		
TYPE	LOCATION	CAPABILITY
Corrosive material gloves	Packaging and Material Handling Room	Provide protection for hands when exposed to corrosive materials
Solvent resistant gloves	Packaging and Material Handling Room	Provide protection for hands when exposed to solvents, alcohols, and water-based solutions
Abrasion resistant gloves	Packaging and Material Handling Room	Provide abrasion, cut and puncture protection for hands when handling containers and tools
Response gloves	Packaging and Material Handling Room	Provide protection for hands when exposed to an undetermined chemical or a wide variety of toxic/hazardous materials
Chemical resistant coveralls	Outside Men's Change Room	Provide protection when overpacking containers

## 9.5 SPILL CONTROL AND CONTAINMENT SUPPLIES

SPILL CONTROL EQUIPMENT		
TYPE	LOCATION	CAPABILITY
Drum dolly	Material/equipment storage area	Specialized hand truck for moving drums
Absorbent material - cat litter, diatomaceous earth	Material/equipment storage area	Absorbing spills
Overpack drums	Material/equipment storage area	Overpack damaged containers
Chemical transfer pumps (hand pumps)	Material/equipment storage area	Transfer liquids to secure containers
(electrical)	Packing and sampling room	Transfer liquids to secure containers
(explosion-proof)	Flammable cell 1-A	Transfer liquids to secure containers
Nonsparking tools	Material/equipment storage area	Handling flammables

## 9.5 EMERGENCY RESPONSE CENTER

The Emergency Response Center for 616 NRDWSF Facility is the 616 Building office unless the facility is not habitable. In such an event, proceed as directed by the organization in charge.

## 10.0 COORDINATION AGREEMENTS

RL has established a number of coordination agreements, or memoranda of understanding (MOU) with various agencies to ensure proper response resource availability for incidents involving the Hanford Site. A description of the agreements is contained in Section 8.0 of DOE/RL-93-75.

## 11.0 REQUIRED REPORTS

Three types of written postincident reports are required for incidents on the Hanford site. The reports are summarized in DOE/RL-93-75.

## 12.0 PLAN LOCATION

Copies of this plan are maintained at the following locations:

- 616 Building Office
- All BEDs and Alternates Offices
- Northern Area ECC
- Hanford Local Area Network (HLAN).

## 13.0 REFERENCES

DOE Order 5000.3B, "Occurrence Reporting and Processing of Operations Information"

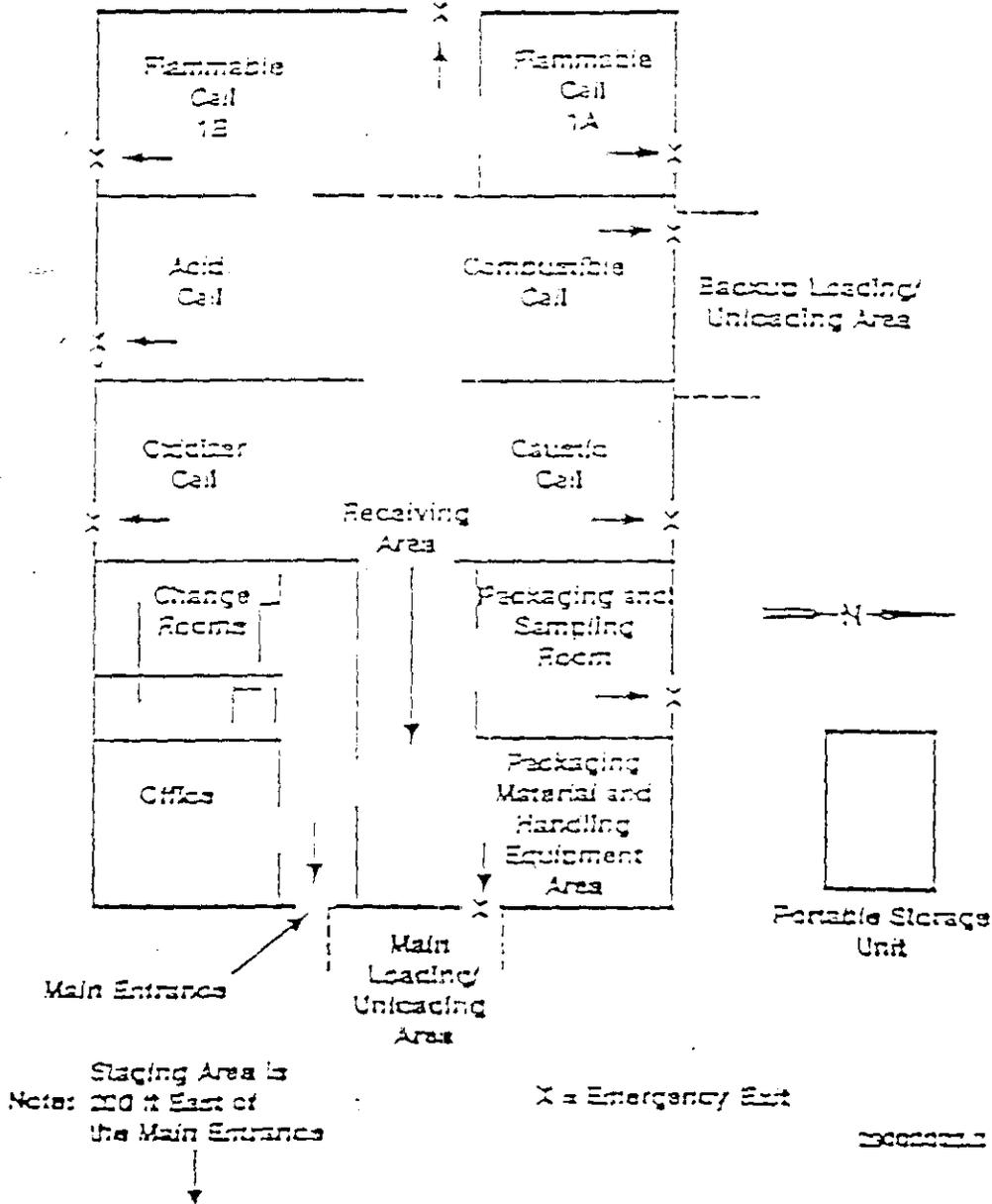
DOE Order 5500.1B, "Emergency Management Systems"

DOE/RL-93-75, *Hanford Facility Contingency Plan*

NIOSH, 1985, *Pocket Guide to Chemical Hazards*, National Institute of Occupational Safety and Health, U.S. Department of Health and Human Resources, Public Health Service, Centers for Disease Control, Washington, D.C.

WAC 173-303, "Dangerous Waste Regulations," Washington State Department of Ecology, Olympia, Washington.

Figure 1. The 616 NRDWSF Layout, Exits, and Staging Area



ATTACHMENT A

Listing of Procedures and Guides

This page intentionally left blank.

The list is maintained at the facility and will be provided upon request.

10/10/10

Enclosure 8

3.0 WASTE CHARACTERISTICS [C]

305-B receives a wide variety of dangerous waste and limited quantities of RIV. This variety results from the nature of the activities generating the wastes, namely research and development. This chapter describes the characteristics of the wastes received at 305-B, and presents the waste analysis plan used to characterize these wastes to ensure proper management.

3.1 CHEMICAL, BIOLOGICAL, AND PHYSICAL ANALYSIS

Wastes stored at 305-B are from DOE operated and managed facilities and are usually generated by PNL staff. Wastes stored at the unit can be categorized as originating from seven basic sources:

- Waste from nonspecific sources
- Discarded commercial chemical products
- Waste from research activities using radioactive isotopes
- Waste from chemicals synthesized or created in research laboratories
- Discarded commercial products exhibiting dangerous-waste characteristics and/or criteria.
- Oil wastes
- Waste from maintenance activities.

Each of these waste categories is discussed below, including waste descriptions, hazard characteristics, and bases for hazard designations. A complete listing of wastes managed at 305-B, specified by waste code, is included in the Part A application Form 3. The following information includes that which must be known to treat, store, or dispose of the wastes, as required under WAC 173-303-806(4)(a)(ii).

Wastes from Nonspecific Sources. Wastes from nonspecific sources consist of those listed wastes identified in WAC 173-303-9904. The Part A permit application for 305-B identifies the following wastes from this category with their estimated annual management quantities:

- F001 - spent halogenated degreasing solvents and sludges (2000 kg/yr)
- F002 - spent halogenated solvents and still bottoms (2000 kg/yr)
- F003 - spent nonhalogenated solvents and still bottoms (5000 kg/yr)

- 1 • F004 - spent nonhalogenated solvents and still bottoms (1000 kg/yr)
- 2
- 3 • F005 - spent nonhalogenated solvents and still bottoms (5000 kg/yr)
- 4
- 5 • F027 - discarded polychlorinated phenol formulations (200 kg/yr)
- 6

7 These halogenated and nonhalogenated solvents are in the form of spent  
8 solvents; no still bottoms are generated. Degreasing solvents (F001), as well  
9 as spent halogenated solvents (F002), are used primarily in research although  
10 some commercial applications do exist (e.g., printing, duplicating). Spent  
11 non-halogenated solvents (F003, F004, and F005) also come primarily from  
12 research laboratories, although a significant amount of methyl ethyl ketone  
13 (F005) is generated through maintenance applications such as the Craft  
14 Services paint shop (350 Building). Manufacturing is not performed at FNL;  
15 therefore, dangerous wastes from specific sources (MAC 173-303-9904 "K"  
16 Wastes) are not generated.

17  
18 Wastes in this category (F Wastes) are generally received at 305-B in 1-gal  
19 and 5-gal flammable liquid safety cans ("flash cans"). Methyl ethyl ketone,  
20 which is received in 55-gal drums, is an exception.

21  
22 Wastes in this category are designated on the basis of the generator's  
23 knowledge [i.e., information from container labels or material safety data  
24 sheets (MSDS)], or by sampling. Sampling is performed if there is  
25 insufficient information to document the composition and characteristics of  
26 the waste. The waste generator is responsible for specifying the  
27 characteristics of the waste on the basis of knowledge of the chemical  
28 products used (i.e., information supplied by the manufacturer) and the process  
29 generating the waste. These listed wastes are all designated as DV unless the  
30 generator determines through process knowledge (i.e., knowledge of materials  
31 used and concentrations used) that wastes F001 or F002 contain greater than 1%  
32 halogenated hydrocarbons. Wastes with greater than 1% halogenated  
33 hydrocarbons are designated as extremely hazardous waste (EHW). Wastes F001  
34 through F005 are also designated as land disposal restricted (LDR) wastes  
35 under 40 CFR 268.30 (solvent wastes). Waste F027 is designated as an LDR  
36 waste under 40 CFR 268.31 (dioxin-containing waste).

37  
38 Discarded Chemical Products. Discarded chemical products are those listed in  
39 WAC 173-303-081. The Part A permit application for 305-B identifies all of  
40 the discarded chemical products listed in WAC 173-303-9903 (U and P listed  
41 wastes) and specifies an estimated maximum annual management quantity, based  
42 on prior experience, of 200 kg/yr for each of these wastes. Only a few of  
43 these wastes are typically generated at any one time. The Part A permit  
44 application listed all of these wastes, however, because the wide variety of  
45 research activities conducted at FNL presents the potential to generate any of  
46 these wastes.

1 These wastes (U wastes and P wastes) are typically received at 305-B in the  
2 manufacturer's original container. Approximately 70% of these wastes are in  
3 partially full, opened containers, and the remaining 30% are in sealed,  
4 unopened containers. These containers typically consist of glass and  
5 polyethylene jars or bottles and metal cans having a volume equal to or less  
6 than 4 L.

7  
8 Wastes in this category are designated on the basis of the generator's process  
9 knowledge. As these wastes are usually in original containers, information on  
10 the container label is verified by generator knowledge (i.e., knowledge that  
11 material is in its original container) and is used to identify contents.  
12 Wastes in "as procured" containers (i.e., original container with intact  
13 label) are not sampled. These listed wastes contain those designated as DW as  
14 well as those designated as E-W. These wastes are also subject to LDR  
15 regulations under 40 CFR 268, including disposal prohibitions and treatment  
16 standards.

17  
18 Waste from Research Activities Using Radioactive Isotopes. Dangerous wastes  
19 (DW) from research activities using radioactive isotopes are mixed waste.  
20 These wastes are generated in laboratories performing chemical and physical  
21 research and consist primarily of radiologically contaminated chemicals or  
22 lead stacked in sealed 55-gal drums. These wastes are designated on the basis  
23 of the generator's knowledge or on the basis of sampling and analysis. The  
24 generator's knowledge is used if the generator has kept accurate written  
25 records of the identities and concentrations of constituents present in the  
26 waste. For example, many generators keep log sheets for accumulation  
27 containers in satellite areas to keep a record of waste constituents. If  
28 information available from the generator is inadequate for waste designation,  
29 the wastes are sampled (as described in Section 5.2) and the results of the  
30 analysis are used for designation. These wastes include those designated as  
31 DW mixtures under WAC 173-303-084 and also those designated as characteristic  
32 DW under WAC 173-303-090. The Part A permit application for 305-B includes  
33 all categories of toxic, persistent, and carcinogenic waste mixtures (i.e.,  
34 both DW and E-W). While not all of these wastes are currently generated or  
35 have been generated, the wide variety of research activities conducted at PNL  
36 presents the potential that these wastes could be generated and require  
37 subsequent management at 305-B. Similarly, the Part A permit application  
38 includes the characteristic DW categories D001 through D043 (i.e., ignitable,  
39 corrosive, reactive, and TCLP toxic due to metals or organic content).

40  
41 Flammables (i.e., flash point less than 100° Fahrenheit) will not be stored in  
42 the below-grade mixed waste cell; however, ignitables (D001 due to oxidizer  
43 content) will be stored in this cell. Flammable mixed waste is not stored  
44 below grade due to UFC restrictions. These wastes are stored above the grade  
45 in a flammable storage module. The flammable mixed waste module is equipped  
46 with secondary containment to provide greater than 100% secondary containment  
47 volume.  
48

1 The waste in this category could include those designated as either DW or EHW.  
2 These wastes could also be federal LDR wastes regulated under 40 CFR 268 as  
3 well as state LDR wastes regulated under WAC 173-303-140 (e.g., leachable  
4 inorganic wastes).

5  
6 Waste from Chemicals Synthesized or Created in Research Laboratories. Wastes  
7 from chemicals synthesized or created in research laboratories typically  
8 consist of organic in quantities of 100 g or less, received in small  
9 containers.

10  
11 These wastes are designated on the basis of the generator's knowledge or on  
12 the basis of sampling and analysis. The generator's process knowledge is used  
13 if the he has kept accurate records of the identities and concentrations of  
14 constituents present in the waste (e.g., log sheets for accumulation  
15 containers). If information available from the generator is inadequate for  
16 waste designation, the wastes are sampled (as described in Section 3.2) and  
17 the results of the analysis are used for designation. These wastes include  
18 those designated as DW mixtures under WAC 173-303-084 and also those  
19 designated as characteristic DW under WAC 173-303-090. The Part A permit  
20 application for 305-B includes all categories of toxic, persistent, and  
21 carcinogenic waste mixtures (i.e., both DW and EHW). While not all of these  
22 wastes are currently generated or have been generated, the wide variety of  
23 research activities conducted at Hanford presents the potential that these  
24 wastes could be generated and require subsequent management at 305-B. The  
25 wastes in this category could include those designated as either DW or EHW.  
26 These wastes could also be federal LDR wastes regulated under 40 CFR 268 as  
27 well as state LDR wastes regulated under WAC 173-303-140 (e.g.,  
28 organic/carbonaceous wastes).

29  
30 Discarded Commercial Products Exhibiting Dangerous Waste Characteristics.

31 Many discarded chemical products handled in 305-B are not listed in WAC 173-  
32 303-9903 and are still considered DW since they exhibit at least one DW  
33 characteristic and/or criterion (WAC 173-303-090 and WAC 173-303-084). These  
34 wastes are included with those listed in the Part A permit application under  
35 waste codes D001 through D043, W01, W02, W01, W02, and W02. These wastes  
36 are typically received at 305-B in the manufacturer's original container.  
37 Approximately 70% of the wastes are in partially full, opened containers; the  
38 remaining 30% are in sealed, unopened containers for which no local  
39 recycle/reuse options can be identified. These containers typically consist  
40 of glass and polyethylene jars or bottles and metal cans having a maximum  
41 volume of 4 L.

42  
43 Wastes in this category are designated based on the generator's process  
44 knowledge. As these wastes are usually in their original containers,  
45 information on the container label is verified by the generator's process  
46 knowledge and is used to identify the contents. These wastes contain those  
47 designated as DW as well as those designated as EHW. These wastes could also  
48 be federal LDR wastes regulated under 40 CFR 268 as well as state LDR wastes

1 regulated under WAC 173-303-140 (e.g., organic/carbonaceous wastes, leachable  
2 inorganic wastes).  
3

4 Oil Wastes. Oil wastes typically consist of pump oil, PCBs, soil contaminated  
5 with oil, and other commercially refined products contaminated with DV  
6 constituents. These wastes are typically received in 5 gal or larger  
7 containers and are designated on the basis of the generator's process  
8 knowledge or on the basis of sampling and analysis. The generator's process  
9 knowledge is used if the generator has kept accurate records of the identities  
10 and concentrations of constituents present in the waste (e.g., log sheets for  
11 accumulation containers). If information available from the oils were used in  
12 machinery or a process where contamination by other wastes is suspected, the  
13 wastes are sampled and the results usually designated as characteristic wastes  
14 (including W001) and/or wastes from nonspecific sources (F001 through F005),  
15 as listed above, or toxicity characteristic (D004-D043), depending on the type  
16 of contamination.  
17

18 Waste from Maintenance Activities. Waste generated during maintenance  
19 activities typically consists of crushed fluorescent light tubes, paints,  
20 light ballasts, and batteries. These wastes are typically received in 5 gal  
21 or larger containers and are designated by MSDS or analytical data. The  
22 generator's process knowledge is used if the generator has kept accurate  
23 records of the identities and concentrations of constituents present in the  
24 waste (e.g., log sheets for accumulation containers). If information  
25 available from the generator or MSDS is inadequate for waste designation or if  
26 the material was used in machinery or a process where contamination by other  
27 wastes is suspected, the wastes are sampled and the results of the analysis  
28 are used for designation. These wastes are usually designated as  
29 characteristic wastes (including W001) and/or wastes from nonspecific sources  
30 (F001 through F005), as listed above, or toxicity characteristic (D004-D043),  
31 depending on the type of contamination.  
32

### 33 3.1.1 Containerized Wastes [C-1a]

34  
35 The container storage areas at 305-B meet the containment system requirements  
36 of WAC 173-303-630(7)(c). Testing or documentation that the dangerous wastes  
37 stored at 305-B do not contain free liquids is not required.  
38

### 39 3.1.2 Waste in Tank Systems [C-1b]

40  
41 This section does not apply to the 305-B Storage Unit because wastes are not  
42 stored in tanks.  
43

### 44 3.1.3 Waste in Piles [C-1c]

45  
46 This section does not apply to the 305-B Storage Unit because wastes are not  
47 stored in piles.  
48

1 3.1.4 Landfilled Wastes [C-1d]  
2

3 | This section does not apply to the 305-B Storage Unit because wastes are not  
4 | placed in landfills.  
5

6 **3.1.5 Wastes Incinerated and Wastes Used in Performance Tests [C-1e]**  
7

8 | This section does not apply to the 305-B Storage Unit because wastes are not  
9 | incinerated.  
10

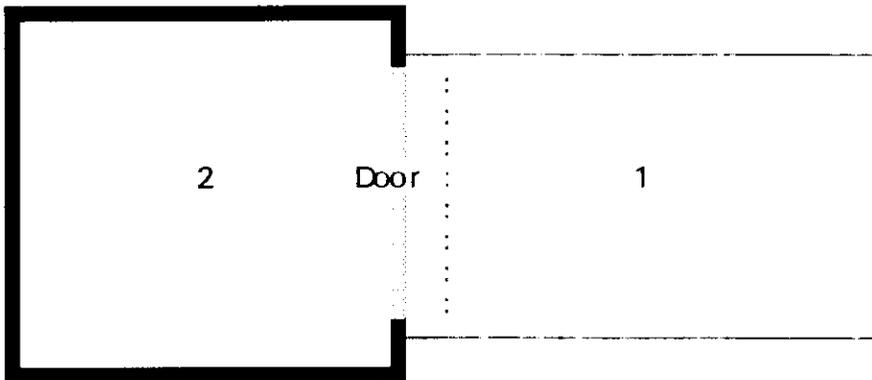
11 **3.1.6 Wastes to be Land Treated [C-1f]**  
12

13 | This section does not apply to the 305-B Storage Unit because wastes do not  
14 | undergo land treatment.

10/10/10

Enclosure 9

1 4.1.1.6.5.a. Flammable Liquids Storage Module. The flammable liquids storage  
2 module is a self-contained storage module that allows additional storage space  
3 for flammable wastes. Located on the southeast wall, it is connected to the  
4 buildings fire suppression system. The flammable storage module has a 2-hour  
5 fire rated containment system so that according to the UFC an unlimited  
6 capacity is allowed. However, the flammable waste storage capacity of the  
7 flammable liquid storage module is limited by the 240 gal capacity of the  
8 module's secondary containment system. No more than 240 gal of any  
9 combination of flammable liquid classes will be stored in the module. This  
10 flammable waste storage capacity is included in flammable storage limits for  
11 the high bay. A diagram of the module is provided in Figure 4-11.  
12  
13



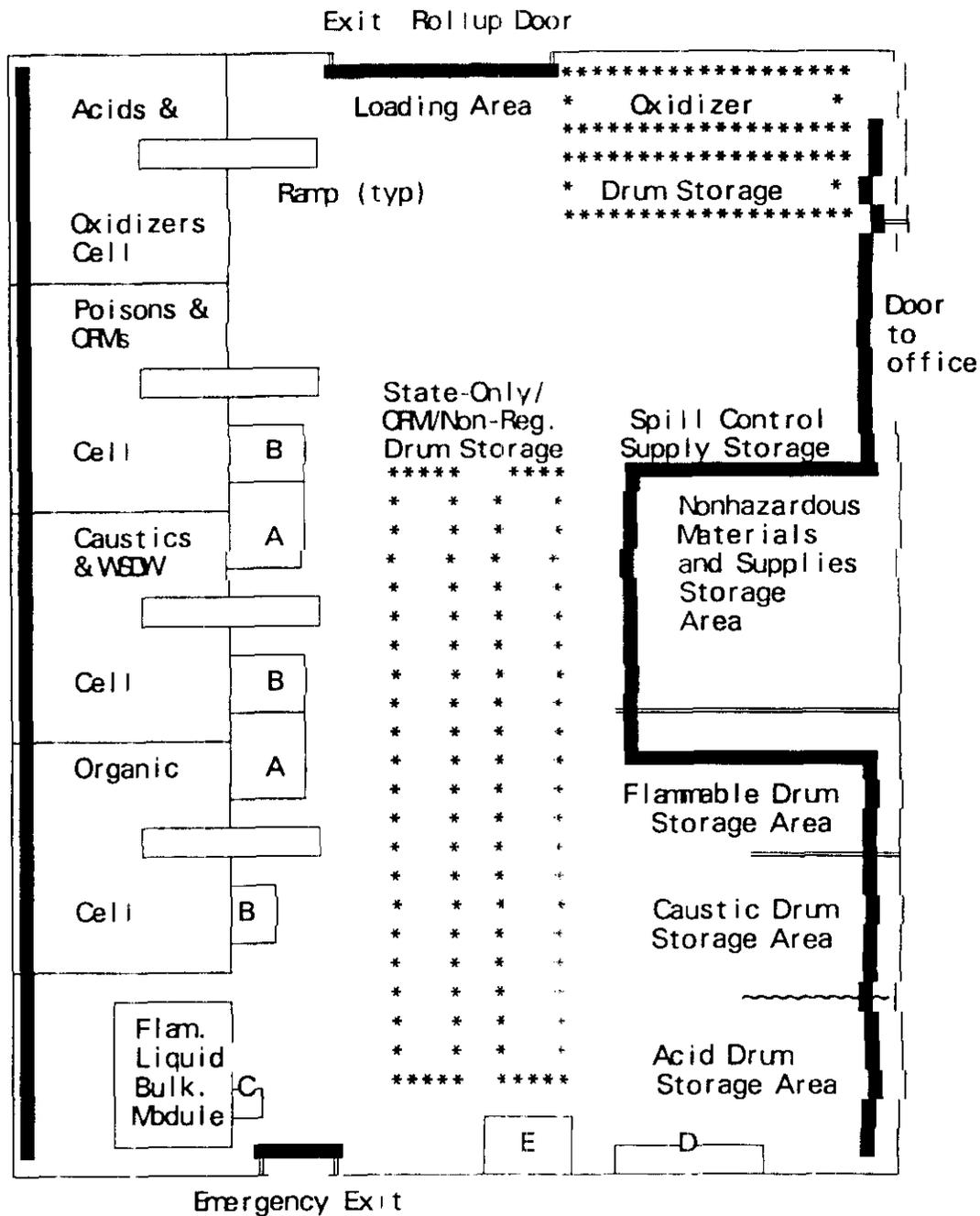
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30  
31 LEGEND

- 32  
33 1 Loading Ramp  
34  
35 2 Drum/Container Storage Area (Flammable liquid storage, 240 gallon max.)  
36  
37

38 Figure 4-11. Flammable Liquids Storage Module.  
39  
40

100-100000-100000

Enclosure 10



Scale: 1"=10' prox.

LEGEND: On next page

Figure 4-7. High Bay Storage Area. (Page 1 of 2)

**LEGEND -- HIGH BAY STORAGE AREA DIAGRAM**

\*\*\*Boundary of palletized drum storage areas

== 3/2" x 6" angle iron sealed to floor as inflow control to trench (see construction detail, App. 4A, Plate 2)

~ 4'H x 10'L Stainless Steel Splash Wall

■ Secondary containment trenches

A Large Drum Storage Cabinet (flammable labpack or bulked drum storage)

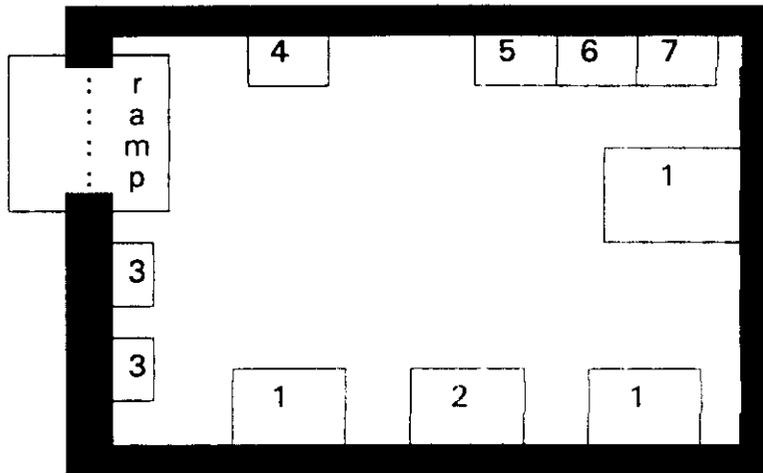
B Small Drum Storage Cabinet (flammable labpack or bulked drum storage)

C Small Storage Cabinet (asbestos)

D Material Handling Hood

E Flammable Liquid Storage Module

Enclosure 11



Scale: 1/8=1' prox.

#### LEGEND

- Concrete wall, epoxy sealed continuous with floor, to a height of 12"
- : Metal sliding door (radiation & spill protective)
- 1 5'x 5'x 8" deep stainless steel containment pan
- 2 Stainless steel pan for PCB MW storage (6' x 6' x 8" deep)
- 3 Corrosive Storage Cabinet
- 4 Flammable Solids Storage Cabinet
- 5 Washington State Dangerous Waste Storage Cabinet
- 6 Poisons Storage Cabinet
- 7 Oxidizer Storage Cabinet

Figure 4-9. Radioactive Mixed Waste Storage Area

10/10/10

Enclosure 12

Table 4-2. Thresholds and Radionuclides

<u>Isotope</u>	<u>Category 3 Curies</u>	<u>Threshold Grams</u>	<u>Isotope</u>	<u>Category 3 Curies</u>	<u>Threshold Grams</u>	<u>Isotope</u>	<u>Category 3 Curies</u>	<u>Threshold Grams</u>
H-3	1.0E+03	1.0E-01	Tc-99	1.7E+03	1.0E+05	Hf-181	7.6E+02	4.5E-02
C-14	4.2E+02	9.4E+01	Ru-106	1.0E+02	3.0E-02	Ir-192	9.4E+02	1.0E-01
Na-22	2.4E+02	3.8E-02	Ag-100m	2.6E+02	5.5E-02	Au-198	2.0E+03	8.2E-03
P-32	1.2E+01	4.2E-05	Cd-109	1.8E+02	7.0E-02	Hg-203	3.6E+02	2.6E-03
P-33	9.4E+01	6.0E-04	Cd-113	1.1E+01	3.2E+13	Pb-210	3.6E-01	4.7E-03
P-32, acid	1.2E+01	4.2E-05	In-114m	2.2E+02	9.5E-03	Bi-207	5.0E+02	9.7E+00
P-33, acid	9.4E+01	6.0E-04	Sn-113	1.3E+03	1.3E-01	Bi-210	3.2E+02	2.6E-03
S-35	7.8E+01	1.8E-03	Sn-123	3.2E+02	3.9E-02	Po-210	1.9E+00	4.2E-04
Cl-36	3.4E+02	1.0E+04	Sn-126	1.7E+02	6.0E+03	Rn-222	1.0E+01	6.5E-05
K-40	1.7E+02	2.4E+07	Sb-124	3.6E+02	2.1E-02	Ra-223	6.2E+01	1.2E-03
Ca-45	1.1E+03	6.2E-02	Sb-126	2.8E+02	3.4E-04	Ra-224	2.0E+02	1.2E-03
Ca-47	7.0E+02	1.1E-03	Te-127m	4.0E+02	4.2E-04	Ra-225	7.2E+01	1.8E-03
Sc-46	3.6E+02	1.1E-02	Te-129m	4.0E+02	1.3E-02	Ac-225	3.2E+01	5.5E-04
Ti-44	6.2E+01	3.6E-01	I-125	5.6E-01	3.2E-05	Ac-227	4.2E-02	5.8E-04
V-48	6.4E+02	3.8E-03	I-131	9.2E-01	7.4E-06	Th-228	1.0E+00	1.2E-03
Cr-51	2.2E+04	2.4E-01	Xe-133	2.0E+04	1.1E-01	Th-230	6.2E-01	3.1E+01
Mn-52	3.4E+02	7.6E-04	Cs-134	4.2E+01	3.3E-02	Th-232	1.0E-01	9.1E+05
Fe-55	5.4E+03	2.2E+00	Cs-137	6.0E+01	6.9E-01	U-233	4.2E+00	4.4E+02
Fe-59	6.0E+02	1.2E+02	Ba-133	1.1E+03	4.3E+00	U-234	4.2E+00	6.7E+02
Co-60	2.8E+02	2.5E-01	Ba-140	6.0E+02	8.2E-03	U-235	4.2E+00	1.9E+06
Ni-63	5.4E+03	9.5+01	Ce-141	1.0E+03	3.5E-02	U-238	4.2E+00	1.3E+07
Zn-65	2.4E+02	2.9E-02	Ce-144	1.0E+02	3.1E-02	Np-237	4.2E-01	6.0E+02
Ge-68	1.0E+03	1.5E-01	Pm-145	2.0E+03	1.4E+01	Np-238	1.3E+03	5.0E-03
Se-75	3.2E+02	2.2E-02	Pm-147	1.0E+03	9.5E-01	Pu-238	6.2E-01	3.6E-02
Kr-85	2.0E+04	5.1E+01	Sm-151	1.0E+03	3.8E+01	Pu-239	5.2E-01	8.4E+00
Sr-89	3.4E+02	1.2E-02	Eu-152	2.0E+02	1.2E+00	Pu-241	3.2E+01	3.1E-01
Sr-90	1.6E+01	1.2E-01	Eu-154	2.0E+02	7.6E-01	Am-241	5.2E-01	1.5E-01
Y-91	3.6E+02	1.5E-02	Eu-155	9.4E+02	2.0E+00	Am-242m	5.2E-01	5.3E-02
Zr-93	6.2E+01	2.5E+04	Gd-153	1.0E+03	2.8E-01	Am-243	5.2E-01	2.6E+00
Zr-95	7.0E+02	3.3E-02	Tb-160	5.6E+02	5.0E-02	Cm-242	3.2E+01	9.7E-03
Nb-94	2.0E+02	1.1E+03	Ho-166m	7.2E+01	4.0E+01	Cm-245	5.2E-01	3.0E+00
Mo-99	3.4E+03	7.1E-03	Tm-170	5.2E+02	8.7E-02	Cf-252	3.2E+00	6.0E-03

HANFORD FACILITY WIDE PERMIT (REV. 1)

ATTACHMENT 4

PERMIT APPLICABILITY MATRIX

Updated April 24, 1995

PART I								
CONDITION		CATEGORY						QUALIFIERS
PART	TITLE	A	B <sup>1</sup>	C <sup>2</sup>	D <sup>3</sup>	E	F	
I.A.	EFFECT OF PERMIT							
I.A.1.a		*	*	*	*	*	*	
I.A.1.b		*	*	*	*	*	*	
I.A.2		*	*		*	*	*	
I.A.3	Coord. w/FFACO		*		*	*	*	
I.B.	PERSONAL & PROPERTY		*		*	*	*	
I.C.	PERMIT ACTIONS							
I.C.1.	Modification,		*		*	*	*	
I.C.2.	Filing of a Request		*		*	*	*	
I.C.3.	Modifications		*		*	*	*	
I.D.	SEVERABILITY							
I.D.1.	Effect of		*		*	*	*	
I.D.2.	Final Resolution		*		*	*	*	
I.E.	DUTIES &							
I.E.1.	Duty to Comply		*		*	*	*	
I.E.2.	Compliance Not		*		*	*	*	
I.E.3.	Duty to Reapply		*		*	*	*	

CATEGORIES ARE DEFINED AS FOLLOWS:

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

- \* - 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., and II.X.

HANFORD FACILITY WIDE PERMIT (REV. 1)  
ATTACHMENT 4  
PERMIT APPLICABILITY MATRIX  
Updated April 24, 1995

CONDITION		CATEGORY						QUALIFIERS
PART	TITLE	A	B <sup>1</sup>	C <sup>2</sup>	D <sup>3</sup>	E	F	
I.E.4.	Permit Expiration &		*		*	*	*	
I.E.5.	Need to Halt or		*		*	*	*	
I.E.6.	Duty to Mitigate		*		*	*	*	
I.E.7.	Proper Operation &		**			*	*	
I.E.8.	Duty to Provide		*		*	*	*	
I.E.9	Inspection & Entry		*		*	*	*	
I.E.10	Monitoring & Records							
I.E.10.a			*		*	*	*	
I.E.10.b			*		*	*	*	
I.E.10.c			*		*	*	*	
I.E.10.d			*		*	*	*	
I.E.10.e			*		*	*	*	
I.E.11.	Reporting Planned		*			*	*	
I.E.12.	Certification of		*				*	
I.E.13.	Anticipated		*		*	*	*	
I.E.14.	Transfer of Permits		*			*	*	
I.E.15.	Immediate Reporting							
I.E.15.a			*		*	*	*	
I.E.15.b			*		*	*	*	
I.E.15.c			*		*	*	*	
I.E.15.d			*		*	*	*	

CATEGORIES ARE DEFINED AS FOLLOWS

- |                                    |                                                  |
|------------------------------------|--------------------------------------------------|
| <b>A.</b> Leased Land              | <b>D.</b> Areas Between TSDs (excluding A and B) |
| <b>B.</b> North Slope and ALE      | <b>E.</b> TSD Unit Closures (in Part V)          |
| <b>C.</b> Interim Status TSD Units | <b>F.</b> TSD Operating Units (in Part III)      |

HANFORD FACILITY WIDE PERMIT (REV. 1)  
 ATTACHMENT 4  
 PERMIT APPLICABILITY MATRIX  
 Updated April 24, 1995

CONDITION		CATEGORY						QUALIFIERS
PART	TITLE	A	B <sup>1</sup>	C <sup>2</sup>	D <sup>3</sup>	E	F	
I.E.15.e			*		*	*	*	
I.E.16	Written Reporting		*		*	*	*	
I.E.17	Manifest Discrepancy							
I.E.17.a			*			*	*	
I.E.17.b			*		*	*	*	
I.E.18.	Unmanifested Waste		*			*	*	
I.E.19.	Other Noncompliance		*		*	*	*	
I.E.20.	Other Information		*		*	*	*	
I.E.21.	Reports,		*		*	*	*	
I.E.22.	Annual Report		*		*	*	*	
I.F.	SIGNATORY		*		*	*	*	
I.G.	CONFIDENTIAL		*		*	*	*	
I.H.	DOCUMENTS TO BE		*		*	*	*	

**PART II**

CONDITION		CATEGORY						QUALIFIERS
PART	TITLE	A	B	C	D	E	F	
II.A.	FACILITY CONTINGENCY PLAN							
II.A.1.					*	*	*	For Category D, II.A. Conditions only apply to releases of hazardous substances which threaten human health or the environment.
II.A.2.					*	*	*	
II.A.3.					*	*	*	
II.A.4.					*	*	*	

CATEGORIES ARE DEFINED AS FOLLOWS:

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

HANFORD FACILITY WIDE PERMIT (REV. 1)  
 ATTACHMENT 4  
 PERMIT APPLICABILITY MATRIX  
 Updated April 21, 1995

CONDITION		CATEGORY						QUALIFIERS
PART	TITLE	A	B	C	D	E	F	
II.A.5.					*	*	*	
II.B.	PREPAREDNESS & PREVENTION							
II.B.1.						*	*	
II.B.2.						*	*	
II.B.3.						*	*	
II.B.4.						*	*	
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.D.4.					*			
II.E.	QA/QC							
II.E.1.						*	*	
II.E.2.						*	*	
II.E.3.						*	*	

CATEGORIES ARE DEFINED AS FOLLOWS:

- |                                                                                                             |                                                                                                                                                           |
|-------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>A.</b> Leased Land</p> <p><b>B.</b> North Slope and ALE</p> <p><b>C.</b> Interim Status TSD Units</p> | <p><b>D.</b> Areas Between TSDs (excluding A and B)</p> <p><b>E.</b> TSD Unit Closures (in Part V)</p> <p><b>F.</b> TSD Operating Units (in Part III)</p> |
|-------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|

HANFORD FACILITY WIDE PERMIT (REV. 1)

ATTACHMENT 4

PERMIT APPLICABILITY MATRIX

Updated April 24, 1995

CONDITION		CATEGORY						QUALIFIERS
PART	TITLE	A	B	C	D	E	F	
II.E.4.						*	*	
II.E.5.						*	*	
II.F.	GW AND VADOSE ZONE MONITORING					*	*	
II.F.1.	Purgewater Management					*	*	
II.F.2.	Well Remed. & Abandonment							
II.F.2.a						*	*	
II.F.2.b						*	*	
II.F.2.c						*	*	
II.F.2.d						*	*	
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 & REPORTING							
II.H.1.	Cost Estimate for Facility Closure					*	*	
II.H.2.	Cost Est. for Postclosure Monitoring & Maintenance					*	*	
II.H.3.						*	*	
II.I.	FACILITY OPERATING RECORD							

CATEGORIES ARE DEFINED AS FOLLOWS:

- |                                    |                                                  |
|------------------------------------|--------------------------------------------------|
| <b>A.</b> Leased Land              | <b>D.</b> Areas Between TSDs (excluding A and B) |
| <b>B.</b> North Slope and ALE      | <b>E.</b> TSD Unit Closures (in Part V)          |
| <b>C.</b> Interim Status TSD Units | <b>F.</b> TSD Operating Units (in Part III)      |

HANFORD FACILITY WIDE PERMIT (REV. 1)  
 ATTACHMENT 4  
 PERMIT APPLICABILITY MATRIX  
 Updated April 24, 1995

CONDITION		CATEGORY						QUALIFIERS
PART	TITLE	A	B	C	D	E	F	
II.I.1.		*	*		*	*	*	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.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	Condition Reserved							
II.I.1.i						*	*	
II.I.1.j						*	*	
II.I.1.k					*	*	*	
II.I.1.l	Condition Reserved							
II.I.1.m						*	*	
II.I.1.n					*	*	*	
II.I.1.o	Condition Reserved							
II.I.1.p			*		*	*	*	
II.I.1.q			*		*	*	*	
II.I.1.r					*	*	*	
II.I.1.s					*	*	*	
II.I.1.t					*	*	*	

CATEGORIES ARE DEFINED AS FOLLOWS:

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

HANFORD FACILITY WIDE PERMIT (REV. 1)  
ATTACHMENT 4  
PERMIT APPLICABILITY MATRIX  
Updated April 24, 1995

CONDITION		CATEGORY						QUALIFIERS
PART	TITLE	A	B	C	D	E	F	
II.I.2.		*	*		*	*	*	
II.J.	FACILITY CLOSURE							
II.J.1.						*	*	
II.J.2.						*	*	
II.J.3.						*	*	
II.J.4.						*	*	
II.K.	SOIL/GW 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 & OPERATION OF FACILITY							
II.L.1.	Proper Design & Construction					*	*	Condition II.L.2. only applies to Category E if it is a landfill closure.
II.L.2.	Design Changes, Nonconformance, & As- Built Drawings					*	*	
II.L.3.	Facility Compliance				*	*	*	
II.M.	SECURITY					*	*	

CATEGORIES ARE DEFINED AS FOLLOWS:

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

HANFORD FACILITY WIDE PERMIT (REV. 1)  
 ATTACHMENT 4  
 PERMIT APPLICABILITY MATRIX  
 Updated April 24, 1995

CONDITION		CATEGORY						QUALIFIERS
PART	TITLE	A	B	C	D	E	F	
II.N.	RECEIPT OF DANG. 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						*	
II.O.	GENERAL INSPECTION REQUIREMENTS							
II.O.1.					*			
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				*	*	*	

CATEGORIES ARE DEFINED AS FOLLOWS:

- |                                                                                                                                       |                                                                                                                                                                                     |
|---------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>A. Leased Land</li> <li>B. North Slope and ALE</li> <li>C. Interim Status TSD Units</li> </ul> | <ul style="list-style-type: none"> <li>D. Areas Between TSDs (excluding A and B)</li> <li>E. TSD Unit Closures (in Part V)</li> <li>F. TSD Operating Units (in Part III)</li> </ul> |
|---------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

HANFORD FACILITY WIDE PERMIT (REV. 1)

ATTACHMENT 4

PERMIT APPLICABILITY MATRIX

Updated April 24, 1995

CONDITION		CATEGORY						QUALIFIERS
PART	TITLE	A	B	C	D	E	F	
II.T.	ACCESS & INFORMATION				*	*	*	
II.U.	MAPPING OF UNDERGROUND PIPING							
II.U.1.				*		*	*	
II.U.2.				*		*	*	
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.						*	*	
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.

CATEGORIES ARE DEFINED AS FOLLOWS:

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

HANFORD FACILITY WIDE PERMIT (REV. 1)

ATTACHMENT 4

PERMIT APPLICABILITY MATRIX

Updated April 24, 1995

CONDITION		CATEGORY						QUALIFIERS
PART	TITLE	A	B	C	D	E	F	
<b>PARTS III, IV, and V</b>								
III.	UNIT SPECIFIC CONDITIONS FOR FINAL STATUS OPERATIONS							
III.1.A.	616 NRWSF COMPLIANCE WITH APPROVED PERMIT APPLICATION					*		
III.1.B.	AMENDMENTS TO THE APPROVED PERMIT APPLICATION					*		
III.2.A.	305-B COMPLIANCE WITH APPROVED PERMIT APPLICATION					*		
III.2.B.	AMENDMENTS TO THE APPROVED PERMIT APPLICATION					*		
IV.	CORRECTIVE ACTIONS FOR PAST PRACTICE	*			*			
V.	UNIT SPECIFIC CONDITIONS FOR UNITS UNDERGOING CLOSURE							
V.1.A.	183-H BASINS COMPLIANCE WITH APPROVED CLOSURE PLAN					*		
V.1.B.	AMENDMENTS TO THE APPROVED CLOSURE PLAN					*		
V.2.A.	300 ASE COMPLIANCE WITH APPROVED CLOSURE PLAN					*		
V.2.B.	AMENDMENTS TO THE APPROVED CLOSURE PLAN					*		
V.3.A.	2727-S COMPLIANCE WITH APPROVED CLOSURE PLAN					*		
V.3.B.	AMENDMENTS TO THE APPROVED CLOSURE PLAN					*		

CATEGORIES ARE DEFINED AS FOLLOWS:

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

HANFORD FACILITY WIDE PERMIT (REV. 1)

ATTACHMENT 4

PERMIT APPLICABILITY MATRIX

Updated April 24, 1995

CONDITION		CATEGORY						QUALIFIERS
PART	TITLE	A	B	C	D	E	F	
V.4.A.	SHLWS COMPLIANCE WITH APPROVED CLOSURE PLAN					*		
V.4.B.	AMENDMENTS TO THE APPROVED CLOSURE PLAN					*		
V.5.A.	218 BPDS COMPLIANCE WITH APPROVED CLOSURE PLAN					*		
V.5.B.	AMENDMENTS TO THE APPROVED CLOSURE PLAN					*		
V.6.A.	200 APDS COMPLIANCE WITH APPROVED CLOSURE PLAN					*		
V.6.B.	AMENDMENTS TO THE APPROVED CLOSURE PLAN					*		
V.7.A.	2101-M POND COMPLIANCE WITH APPROVED CLOSURE PLAN					*		
V.7.B.	AMENDMENTS TO THE APPROVED CLOSURE PLAN					*		
V.8.A.	B PONDS COMPLIANCE WITH APPROVED CLOSURE PLAN					*		
V.8.B.	AMENDMENTS TO THE APPROVED CLOSURE PLAN					*		

CATEGORIES ARE DEFINED AS FOLLOWS:

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

GENERAL NOTES:

1. ALL BOLTS FOR STRUCTURAL STEEL CONNECTIONS ARE 5/8" DIAMETER (ASTM A 325).
2. THE EXPANSION BOLTS HAVE THE FOLLOWING MINIMUM EMBEDMENT LENGTHS UNLESS NOTED OTHERWISE:
  - 2-1/2" LONG FOR 3/8" DIAMETER BOLTS
  - 3-1/2" LONG FOR 1/2" DIAMETER BOLTS
3. MINIMUM CONCRETE COVER FOR REINFORCEMENT SHALL BE AS FOLLOWS:
  - CONCRETE CAST AGAINST EARTH = 3"
  - CONCRETE EXPOSED TO EARTH OR WEATHER = 1-1/2"
4. THE CONSTRUCTION OF SEPTIC TANK AND PERFORATED PIPES IN DRAIN FIELD SHALL BE IN ACCORDANCE WITH SPECIFICATION AND REQUIREMENTS CONFORMING TO EPA MANUAL NO. EPA 625/1-80-012.
5. ALL CONCRETE SLABS WITH EXTERIOR VERTICAL SURFACES SHALL HAVE EXPANSION JOINTS. (SEE DRAWING H-6-1556, DETAIL 1 FOR EXPANSION JOINT DETAIL.)
6. SEE SPECIFICATION B-526-C1 FOR MATERIAL DESCRIPTION AND INSTALLATION INSTRUCTIONS.
7. METAL RAMP INSTALLED. PAINTED W/ PITTSBURG "AQUAPON", TWO-PART EPOXY, 97-3 COMPONENT 1; AND 97-98 COMPONENT 2. NON-SKID COMPONENT IS TEX SHELL.

B

ING

4  
EV

A

HO APPROVAL		DATE	<b>U. S. DEPARTMENT OF ENERGY</b>		
BY <i>J. J. Noble</i>		7/24/85	<b>Richland Operations Office</b>		
			<b>KAISER ENGINEERS HANFORD COMPANY</b>		
PROJECT ENGINEER		7/24/85	<b>STRUCTURAL PLAN &amp; SECTIONS</b>		
QA		9/21/85			
APPROVED BY		6/14/85			
SAFETY		4/21/85			
APPROVED BY		6/1/85			
PROJECT TITLE			NON-RADIOACTIVE HAZARDOUS CHEMICAL WASTE FACILITY		
CHECKED BY		6/18/85	PROJ	WO	JOB
DRAWN BY		3-22-85	B-526	X52602	R688A2
DESIGNED BY		3-20-85	SCALE	BLDG	INDEX
M. HAQ			SHOWN	616	0900, 1000
CLASSIFICATION	BY	DRAWING NUMBER		SHEET	OF
NONE	NOT REQD	H-6-1556		1	2
					REV
					4