

0050749

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

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

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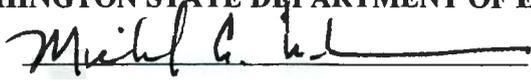
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This Permit, as modified on May 18, 1999, is effective as of June 17, 1999, and shall remain in effect through September 27, 2004, unless revoked and reissued under WAC 173-303-830(3), terminated under WAC 173-303-830(5), or continued in accordance with WAC 173-303-806(7). The Internet address for this Permit is <http://www.hanford.gov/docs/wa7890008967/index.htm>.

ISSUED BY: WASHINGTON STATE DEPARTMENT OF ECOLOGY


Michael Wilson, Manager
Nuclear Waste Program
Department of Ecology

Date: 5-18-99



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LIST OF ATTACHMENTS

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- 2 The following listed documents are attached in their entirety. However, only those portions of the
3 Attachments specified in Parts I through VI are enforceable Conditions of this Permit and subject to the
4 Permit Modification requirements of Condition I.C.3. Changes to portions of the Attachments, which are
5 not subject to the Permit Modification process, shall be addressed in accordance with Conditions I.E.8.,
6 I.E.11., I.E.13., and I.E.15. through I.E.20., and I.E.22. Ecology has, as deemed necessary, modified
7 specific language in these Attachments. These Modifications are described in the Conditions (Parts I
8 through VI), and thereby supersede the language of the Attachment.
- 9 Attachment 1 Hanford Federal Facility Agreement and Consent Order, (As Amended)
- 10 Attachment 2 Hanford Facility Legal Description, from Class 1 Modification dated
11 January 7, 1999
- 12 Attachment 3 Permit Applicability Matrix (As Revised on February 25, 1998)
- 13 Attachment 4 Hanford Emergency Response Plan, DOE/RL-94-02, release 13, July 1, 1998, as
14 amended
- 15 Attachment 5 Purgewater Management Plan, July 1990
- 16 Attachment 6 Hanford Well Remediation and Decommissioning Plan, Revision 0
- 17 Attachment 7 Policy on Remediation of Existing Wells and Acceptance Criteria for RCRA and
18 CERCLA, June 1990
- 19 Attachment 8 616 Nonradioactive Dangerous Waste Storage Facility Part A, Form 3, Revision 7,
20 March 4, 1997, and Part B Permit Application, Revision 2, September 1991, and
21 Approved Modifications
- 22 Attachment 9 616 Nonradioactive Dangerous Waste Shipping Lists
- 23 Attachment 10 616 Nonradioactive Dangerous Waste Facility Description of Procedures
- 24 Attachment 11 183-H Solar Evaporation Basins Closure/Post-Closure Plan, Revision 3, June 1991
25 (Superseded by Attachment 37)
- 26 Attachment 12 Decommissioning Work Plan "Concrete Sampling - 183-H Solar Evaporation
27 Basins" (DWP-H-080-00001) 8-26-91, Revision A-3
- 28 Attachment 13 Decommissioning Work Plan "Core Drill Sampling - 183-H Solar Evaporation
29 Basins (Phase I)" (DWP-H-080-00005) 2-8-91, Revision A-1
- 30 Attachment 14 "183-H Solar Evaporation Basins Vadose Zone Sampling Plan"
31 (WHC-SD-EN-AP-056) 6-25-91, Revision 0
- 32 Attachment 15 Decommissioning Work Plan "Berm Removal for 183-H Solar Evaporation
33 Basins" (DWP-H-026-00008) 1-16-91, Revision A-0
- 34 Attachment 16 300 Area Solvent Evaporator Closure Plan, Revision 3B, September 1992
35 (Clean Closed, July 31, 1995)
- 36 Attachment 17 2727-S Nonradioactive Dangerous Waste Storage Facility Closure Plan,
37 Revision 3, January 1992 (Clean Closed, July 31, 1995)
- 38 Attachment 18 305-B Storage Facility Part A, Form 3, Revision 1, September 25, 1990, and
39 Part B Permit Application, Revision 2, October 1992, and Approved
40 Modifications

1	Attachment 19	Simulated High-Level Waste Slurry TSD Closure Plan, Revision 6A, November 1994 (Clean Closed, October 23, 1995)
2		
3	Attachment 20	218-E-8 Borrow Pit Demolition Site Closure Plan, Revision 1, October 1994 (Clean Closed, November 28, 1995)
4		
5	Attachment 21	200 West Ash Pit Demolition Site Closure Plan, Revision 1, October 1994 (Clean Closed, November 28, 1995)
6		
7	Attachment 22	2101-M Pond Closure Plan, Revision 2A, July 1993 (Clean Closed, November 28, 1995)
8		
9	Attachment 23	216-B-3 Expansion Ponds Closure Plans, Revision 2, October 1994 (Clean Closed, July 31, 1995)
10		
11	Attachment 24	Hanford Patrol Academy Demolition Sites Closure Plan, Revision 1, December 1994 (Clean Closed, November 28, 1995)
12		
13	Attachment 25	105-DR Large Sodium Fire Facility Closure Plan, Revision 2, March 1995 (Partial Closure Plan Completed October 1, 1996)
14		
15	Attachment 26	304 Concretion Facility Closure Plan, Revision 2A, November 1993 (Clean Closed, January 21, 1996)
16		
17	Attachment 27	Permit Modification Schedule as revised on May 18, 1999
18	Attachment 28	PUREX Storage Tunnels Part A, Form 3, Revision 5, October 1996 and Part B, Revision 4, April 1997, and approved Modifications
19		
20	Attachment 29	4843 Alkali Metal Storage Facility Closure Plan, Revision 1, September 1995 (Clean Closed, April 14, 1997)
21		
22	Attachment 30	3718-F Alkali Metal Treatment and Storage Facility Closure Plan, Revision 2, November 1995
23		
24	Attachment 31	300 Area Process Trenches Modified Closure Plan and Part A, Form 3, Revision 4, May 1995 and approved Modifications
25		
26	Attachment 32	303-K Storage Facility Closure Plan, Revision 2A, June 1995
27	Attachment 33	Hanford Facility Dangerous Waste Permit Application General Information Portion, Revision 4, May 1998
28		
29	Attachment 34	Liquid Effluent Treatment Facility, Part A, Form 3, Revision 5, October 1996 and 200 Area Effluent Treatment Facility Part A, Form 3, Revision 2, October 1996 and Part B Permit Application, Revision 0, July 1997, and approved Modifications
30		
31		
32	Attachment 35	242-A Evaporator Part A, Form 3, Revision 7, October 1996, and Part B Permit Application, Revision 1, July 1997, and approved Modifications
33		
34	Attachment 36	325 Hazardous Waste Treatment Units Part A, Form 3, Revision 4, June 1997, and Part B Permit Application, Revision 1, July 1997, and approved Modifications
35		
36	Attachment 37	183-H Solar Evaporation Basins Post-Closure Plan, Revision 0, June 1997
37	Attachment 38	303-K Storage Facility Sampling and Analysis Plan, Revision 0, July 14, 1997
38	Attachment 39	Errata Sheet for the 303-K Storage Facility Sampling and Analysis Plan, August 1, 1997
39		
40	Attachment 40	100-D Ponds Part A, Form 3, Revision 4, June 1994; and Closure Plan

- 1 Attachment 41 1325-N and 1301-NP Part A, Form 3, Revision 7, February 1997; and
- 2 DOE/RL-96-39, Revision 0, Appendix A
- 3 Attachment 42 1324-N and 1324-NA Part A, Form 3, Revision 3, June 1994; and DOE/RL-96-39,
- 4 Revision 0, Appendix B

INTRODUCTION

1

2 Pursuant to Chapter 70.105 Revised Code of Washington (RCW), the Hazardous Waste Management Act
3 (HWMA) of 1976, as amended, Chapter 70.105D RCW, the Model Toxics Control Act (MTCA), and
4 regulations promulgated thereunder by the Washington State Department of Ecology (hereafter called
5 Ecology), codified in Chapter 173-303 Washington Administrative Code (WAC), Dangerous Waste
6 Regulations, a Dangerous Waste Permit is issued to the United States Department of Energy - Richland
7 Operations Office (USDOE-RL), [owner/operator], and its contractors, Fluor Daniel Hanford, Inc. (FDH)
8 [Co-operator] Pacific Northwest National Laboratory (PNNL) [Co-operator], and Bechtel Hanford,
9 Incorporated (BHI) [Co-operator], hereafter called the Permittees, for the treatment, storage, and disposal
10 of dangerous waste at the Hanford Facility.

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

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

26 Applicable state regulations are those which are in effect on the date of issuance, or as specified in
27 subsequent Modifications of this Permit. In addition, applicable state regulations include any self-
28 implementing statutory provisions and related regulations which, according to the requirements of the
29 Hazardous Waste Management Act (HWMA), as amended, or other law(s), are automatically applicable to
30 the Permittees' dangerous waste management activities, notwithstanding the Conditions of this Permit.

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

39 Ecology shall enforce all Conditions of this Permit for which the State of Washington is authorized, or
40 which are "state-only" provisions (i.e., Conditions broader in scope or more stringent than the Federal
41 RCRA program). Any challenges of any Permit Condition may be appealed in accordance with WAC 173-
42 303-845. In the event that any Permit Condition is challenged by any Permittee under WAC 173-303-845,
43 Ecology may stay any such Permit Condition as it pertains to all Permittees, in accordance with the same
44 terms of any stay it grants to the challenging Permittee. If such a stay is granted, it will constitute a "stay
45 by the issuing agency" within the meaning of RCW 43.21B.320(1).

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

- 1 Part I, **Standard Conditions**, contains Conditions which are similar to those appearing in all dangerous
2 waste Permits.
- 3 Part II, **General Facility Conditions**, combines typical dangerous waste Permit Conditions with those
4 conditions intended to address issues specific to the Hanford Facility. Where appropriate, the General
5 Facility Conditions apply to all final status dangerous waste management activities at the Facility. Where
6 appropriate, the General Facility Conditions also address dangerous waste management activities which
7 may not be directly associated with distinct TSD units, or which may be associated with many TSD units
8 (i.e., spill reporting, training, contingency planning, etc.).
- 9 Part III, **Unit-Specific Conditions for Operating Units**, contains those Permit requirements which apply
10 to each individual TSD unit operating under final status. Conditions for each TSD unit are found in a
11 Chapter dedicated to that TSD unit. These unit-specific Chapters contain references to Standard and
12 General Conditions (Parts I and II), as well as additional requirements which are intended to ensure that
13 each TSD unit is operated in an efficient and environmentally protective manner.
- 14 Part IV, **Corrective Actions for Past Practice**, references the EPA's HSWA Permit. The HSWA Permit
15 contains those requirements that apply to the identification of Solid Waste Management Units (SWMUs)
16 at the Facility, and conduct of investigations and remediation at such SWMUs. The HSWA Permit
17 addresses both SWMUs that are located on the USDOE managed portions of the Facility, as well as
18 SWMUs which are not located on USDOE managed property (i.e., leased lands). Any SWMUs located on
19 USDOE managed property are, or will be, included in the FFACO and assigned to operable units. The
20 processes and procedures to be followed, and the schedules of compliance for investigation and subsequent
21 remediation, will be contained in the FFACO. SWMUs not located on USDOE managed property will
22 undergo investigations and remediation, as necessary, in accordance with the requirements and schedules
23 identified in the HSWA Permit.
- 24 It is intended that, once Ecology receives authorization from the EPA to implement the Corrective Action
25 Provisions, these requirements will be incorporated into this Part through a Permit Modification. Until
26 Ecology receives authorization for the Corrective Action Provisions of RCRA, the EPA shall maintain
27 regulatory lead for these requirements.
- 28 Part V, **Unit-Specific Conditions for Units Undergoing Closure**, contains those requirements which
29 apply to those specific TSD units, included in this Part, that are undergoing closure. In accordance with
30 Section 5.3. of the Action Plan of the FFACO, all TSD units that undergo closure, irrespective of Permit
31 status, shall be closed pursuant to the authorized State Dangerous Waste Program in accordance with
32 WAC 173-303-610. Requirements for each TSD unit undergoing closure are found in a Chapter dedicated
33 to that TSD unit. These unit-specific Chapters contain references to Standard Conditions (Part I) and
34 General Conditions (Part II), as well as additional requirements which are intended to ensure that each
35 TSD unit is closed in an efficient and environmentally protective manner.
- 36 Part VI, **Unit-Specific Conditions for Units in Post-Closure**, contains requirements which apply to those
37 specific units in this Part that have completed modified or landfill closure requirements, and now only
38 need to meet Post-Closure Standards. As set out in Section 5.3 of the Action Plan of the FFACO, certain
39 TSD units shall be Permitted for post-closure care pursuant to the authorized State Dangerous Waste
40 Program (173-303 WAC) and the Hazardous and Solid Waste Amendments. Requirements for each unit
41 undergoing post-closure care are found in a Chapter, within this Part, dedicated to that unit. These unit
42 specific Chapters may contain references to Standard Conditions (Part I) and General Conditions (Part II),
43 as well as the unit specific Conditions, all of which are intended to ensure the unit is managed in an
44 efficient, environmentally protective manner.

1
2 **DEFINITIONS**

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

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

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

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

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

17 The following definitions apply throughout this Permit:

- 18 a. The term "**Critical Systems**," as applied to determining whether a Permit Modification is required,
19 means those specific portions of a TSD unit's structure or equipment whose failure could lead to the
20 release of dangerous waste into the environment, and/or systems which include processes which treat,
21 transfer, store, or dispose of regulated wastes. A list identifying the critical systems of a specific TSD
22 unit may be developed and included in Part III, V, and/or VI of this Permit. In developing a critical
23 system list, or in the absence of a critical system list, WAC 173-303-830 Modifications shall be
24 considered.
- 25 b. The term "**Contractor(s)**" means, unless specifically identified otherwise in this Permit, or
26 Attachments, Fluor Daniel Hanford, Inc. (FDH), Pacific Northwest National Laboratory (PNNL), and
27 Bechtel Hanford, Inc. (BHI).
- 28 c. The term "**Dangerous Waste**" means those solid wastes designated under Chapter 173-303 WAC as
29 dangerous or extremely hazardous waste. As used in the Permit, the word "dangerous waste" shall
30 refer to the full universe of wastes regulated by Chapter 70.105 RCW and Chapter 173-303 WAC
31 (including dangerous waste, hazardous waste, extremely hazardous waste, mixed waste, and acutely
32 hazardous waste).
- 33 d. The term "**Days**" means calendar days, unless specifically identified otherwise. Any submittal,
34 notification, or recordkeeping requirement that would be due under the Conditions of this Permit on a
35 Saturday, Sunday, or federal, or state holiday, shall be due on the following business day, unless
36 specifically stated otherwise in the Permit.
- 37 e. The term "**Ecology**" means the Washington State Department of Ecology (with the address as
38 specified on page one [1] of this Permit).
- 39 f. The term "**Director**" means the Director of the Washington State Department of Ecology, or a
40 designated representative. The Program Manager of the Nuclear Waste Program (with the address as
41 specified on page one [1] of this Permit) is a duly authorized and designated representative of the
42 Director for purposes of this Permit.

- 1 g. The term “**Facility**” means all contiguous land, structures, other appurtenances, and improvements on
2 the land used for recycling, reusing, reclaiming, transferring, storing, treating, or disposing of
3 dangerous waste. The legal and physical description of the Facility is set forth in Attachment 2 of this
4 Permit.
- 5 h. The term “**FFACO**” means the Hanford Federal Facility Agreement and Consent Order, as amended
6 (Commonly referred to as Tri-Party Agreement [TPA]).
- 7 i. The term “**RCRA Permit**” means the Dangerous Waste Portion of the RCRA Permit for the
8 Treatment, Storage, and Disposal of Dangerous Waste (Dangerous Waste Permit) issued by the
9 Washington State Department of Ecology, pursuant to Chapter 70.105 RCW and Chapter 173-303
10 WAC, coupled with the HSWA Portion of the RCRA Permit for the Treatment, Storage, and Disposal
11 of Hazardous Waste (HSWA Permit) issued by the EPA, Region 10, pursuant to 42 U.S.C. 6901 et seq.
12 and 40 CFR Parts 124 and 270.
- 13 j. The term “**Permittees**” means the United States Department of Energy (owner/operator), Fluor Daniel
14 Hanford, Inc. (Co-operator), Bechtel Hanford, Inc. (Co-operator), and Pacific Northwest National
15 Laboratory (Co-operator).
- 16 k. The term “**Raw Data**” means the initial value of analog or digital instrument outputs, and/or manually
17 recorded values obtained from measurement tools or personal observation. These values are converted
18 into reportable data (e.g., concentration, percent moisture) via automated procedures and/or manual
19 calculations.
- 20 l. The term “**Reasonable Times**” means normal business hours; hours during which production,
21 treatment, storage, construction, disposal, or discharge occurs, or times when Ecology suspects a
22 violation requiring immediate inspection.
- 23 m. The term “**Significant Discrepancy**” in regard to a manifest or shipping paper, means a discrepancy
24 between the quantity or type of dangerous waste designated on the manifest, or shipping paper, and the
25 quantity or type of dangerous waste a TSD unit actually receives. A significant discrepancy in
26 quantity is a variation greater than ten (10) percent in weight for bulk quantities (e.g., tanker trucks,
27 railroad tank cars, etc.), or any variation in piece count for nonbulk quantities, (i.e., any missing
28 container or package would be a significant discrepancy). A significant discrepancy in type is an
29 obvious physical or chemical difference which can be discovered by inspection or waste analysis (e.g.,
30 waste solvent substituted for waste acid).
- 31 n. The term “**Unit**” (or “**TSD unit**”), as used in Parts I through VI of this Permit, means the contiguous
32 area of land on or in which dangerous waste is placed, or the largest area in which there is a significant
33 likelihood of mixing dangerous waste constituents in the same area. A TSD unit, for purposes of this
34 Permit, is a subgroup of the Facility which has been identified in a Hanford Facility Dangerous Waste
35 Part A Permit Application Form 3.

ACRONYMS

1		
2	ALARA	As Low As Reasonably Achievable
3	AMSF	Alkali Metal Storage Facility
4	APDS	Ash Pit Demolition Site
5	ARAR	Applicable, Relevant, and Appropriate Requirements
6	APP	Used to Denote Appendix Page Numbers
7	APT	Area Process Trenches
8	BHI	Bechtel Hanford, Inc.
9	BPDS	Borrow Pit Demolition Site
10	CD/RR	Chemical Disposal/Recycle Request
11	CERCLA	Comprehensive Environmental Response Compensation and Liability Act
12		of 1980 (as Amended by the Superfund Reauthorization Act of 1986)
13	CFR	Code of Federal Regulations
14	CIP	Construction Inspection Plan
15	CLARC	Cleanup Levels and Risk Calculations
16	CLP	Contract Laboratory Program
17	COC	Chemical Contaminants of Concern
18	DOE-RL	U.S. Department of Energy, Richland Operations Office
19	DSC	Differential Scanning Colorimetry
20	DQO	Data Quality Objective
21	EC	Emergency Coordinator
22	Ecology	Washington State Department of Ecology
23	ECN	Engineering Change Notice
24	EPA	U.S. Environmental Protection Agency
25	ERA	Expedited Response Action
26	ERDF	Environmental Restoration and Disposal Facility
27	ETF	200 Area Effluent Treatment Facility
28	FDH	Fluor Daniel Hanford, Inc.
29	FFACO	Hanford Federal Facility Agreement and Consent Order
30	GW	Ground Water
31	HPADS	Hanford Patrol Academy Demolition Site
32	HSWA	Hazardous and Solid Waste Amendments of 1984
33	HWMA	Hazardous Waste Management Act
34	ID	Identification
35	IRM	Interim Remedial Measure

1	LDR	Land Disposal Restrictions
2	LERF	Liquid Effluent Retention Facility
3	LSFF	105-DR Large Sodium Fire Facility
4	MTCA	Model Toxics Control Act
5	NCR	Nonconformance Report
6	OSWER	Office of Solid Waste and Emergency Response
7	PNNL	Pacific Northwest National Laboratory
8	QA	Quality Assurance
9	QAPP	Quality Assurance Project Plan
10	QC	Quality Control
11	RCRA	Resource Conservation and Recovery Act of 1976
12	RCW	Revised Code of Washington
13	ROD	Records of Decision
14	RPD	Relative Percent Difference
15	SAP	Sampling and Analysis Plan
16	SARA	Superfund Amendments and Reauthorization Act of 1986
17	SCD	Security Control Devices
18	SHLWS	Simulated High Level Waste Slurry
19	SOP	Standard Operating Procedure
20	SWMU	Solid Waste Management Unit
21	TCCLP	Toxicity Characteristic Leaching Procedure
22	TSD	Treatment, Storage, and/or Disposal
23	USDOE	U.S. Department of Energy
24	WAC	Washington Administrative Code
25	WAP	Waste Analysis Plan
26	183-H	183-H Solar Evaporation Basins
27	242-A	242-A Evaporator
28	300 APT	300 Area Process Trenches
29	300 ASE	300 Area Solar Evaporator
30	325 HWTUs	325 Hazardous Waste Treatment Units
31	303-K	303-K Storage Facility
32	305-B	305-B Storage Facility
33	616-NRDWSF	616 Nonradioactive Dangerous Waste Storage Facility

I STANDARD CONDITIONS

I.A EFFECT OF PERMIT

I.A.1. The Permittees are authorized to treat, store, and dispose of dangerous waste in accordance with the Conditions of this Permit and in accordance with the applicable provisions of Chapter 173-303 WAC (including provisions of the Chapter as they have been applied in the 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 that TSD unit is incorporated into Part III, V, and/or VI of this Permit, or until interim status is terminated under WAC 173-303-805(8). Interim status units shall be incorporated into this Permit through the Permit Modification process. (Refer to Attachment 27 for TSD unit incorporation).

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

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

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

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

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.

I.A.4. Coordination With The FFACO

Each TSD unit shall have an application for a final status Permit or closure/post-closure plan submitted to Ecology in accordance with the schedules identified in the FFACO (Milestone M-20-00). After completion of the Permit application or closure plan review, a final Permit decision will be made pursuant to WAC 173-303-840. Specific Conditions for each TSD unit shall be incorporated into this Permit in accordance with the Class 3 Permit Modification procedure identified in Condition I.C.3., at the time identified in the five (5) year Permit Modification Schedule in Attachment 27.

I.B PERSONAL AND PROPERTY RIGHTS

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

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I.C PERMIT ACTIONS

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

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

I.C.2 Filing of a Request

The filing of a request for a Permit Modification, or revocation and reissuance, or termination, or a notification of planned changes, or anticipated noncompliance on the part of the Permittees, shall not stay the applicability or enforceability of any Condition except as provided in WAC 173-303-830(3),(4), and (5).

I.C.3 Modifications

Except as provided otherwise by specific language in this Permit, the Permit Modification procedures of WAC 173-303-830 shall apply to Modifications or changes in design or operation of the Facility, or any Modification or change in dangerous waste management practices covered by this Permit. As an exception, the Permittees shall provide notifications to Ecology required by WAC 173-303-830(4)(a)(i)(A) on a quarterly basis. Each quarterly notification shall be submitted within ten (10) days of the end of the quarter, and provide the required information for all such Modifications put into effect during that reporting period. Quarterly reporting periods shall be based upon the state Fiscal Year.

I.D SEVERABILITY

I.D.1 Effect of Invalidation

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

I.D.2 Final Resolution

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

I.E DUTIES AND REQUIREMENTS

I.E.1 Duty to Comply

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

- 1 I.E.2 Compliance Not Constituting Defense
- 2 Compliance with the terms of this Permit does not constitute a defense to any order issued or
3 any action brought under Section 3007, 3008, 3013, or 7003 of RCRA (42 U.S.C. Sections
4 6927, 6928, 6934, and 6973), Section 104, 106(a) or 107 of the Comprehensive
5 Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) [42 U.S.C.
6 Sections 9604, 9606(a), and 9607], as amended by the Superfund Amendments and
7 Reauthorization Act of 1986 (42 U.S.C. 9601 *et seq.*), or any other federal, state, or local law
8 governing protection of public health, or the environment; provided, however, that
9 compliance with this Permit during its term constitutes compliance at those areas subject to
10 this Permit for the purpose of enforcement with WAC 173-303-140, WAC 173-303-180,
11 WAC 173-303-280 through -395, WAC 173-303-600 through -680, WAC 173-303-810, and
12 WAC 173-303-830, except for Permit Modifications and those requirements not included in
13 the Permit that become effective by statute, or that are promulgated under 40 CFR Part 268
14 restricting the placement of dangerous waste in or on the land.
- 15 I.E.3 Duty to Reapply
- 16 If the Permittees wish to continue an activity regulated by this Permit after the expiration date
17 of this Permit, the Permittees must apply for, and obtain a new Permit, in accordance with
18 WAC 173-303-806(6).
- 19 I.E.4 Permit Expiration and Continuation
- 20 This Permit, and all Conditions herein, will remain in effect beyond the Permit's expiration
21 date until the effective date of the new Permit, if the Permittees have submitted a timely,
22 complete application for renewal per WAC 173-303-806 and, through no fault of the
23 Permittees, Ecology has not made a final Permit determination as set forth in WAC 173-303-
24 840.
- 25 I.E.5 Need to Halt or Reduce Activity Not a Defense
- 26 It shall not be a defense in the case of an enforcement action that it would have been
27 necessary to halt or reduce the permitted activity in order to maintain compliance with the
28 Conditions of this Permit.
- 29 I.E.6 Duty to Mitigate
- 30 In the event of noncompliance with the Permit, the Permittees shall take all reasonable steps
31 to minimize releases to the environment, and shall carry out such measures as are reasonable
32 to minimize or correct adverse impacts on human health and the environment.
- 33 I.E.7 Proper Operation and Maintenance
- 34 The Permittees shall at all times properly operate and maintain all facilities and systems of
35 treatment and control, which are installed or used by the Permittees, to achieve compliance
36 with the Conditions of this Permit. Proper operation and maintenance includes effective
37 performance, adequate funding, adequate operator staffing and training, and adequate
38 laboratory and process controls, including appropriate quality assurance/quality control
39 procedures. This provision requires the operation of backup or auxiliary facilities, or similar
40 systems only when necessary to achieve compliance with the Conditions of the Permit.

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I.E.8 Duty to Provide Information

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

I.E.9 Inspection and Entry

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

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

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

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

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

I.E.10 Monitoring and Records

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

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

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

- 1 I.E.10.d The record retention period may be extended by request of Ecology at any time by
2 notification, in writing, to the Permittees, and is automatically extended during the course of
3 any unresolved enforcement action regarding this Facility to ten (10) years beyond the
4 conclusion of the enforcement action.
- 5 I.E.10.e Records of monitoring information shall include:
6 i. The date, exact place and time of sampling or measurements;
7 ii. The individual who performed the sampling or measurements and their affiliation;
8 iii. The dates the analyses were performed;
9 iv. The individual(s) who performed the analyses and their affiliation;
10 v. The analytical techniques or methods used; and,
11 vi. The results of such analyses.
- 12 I.E.11 Reporting Planned Changes
13 The Permittees shall give notice to Ecology, as soon as possible, of any planned physical
14 alterations, or additions to the Facility subject to this Permit. Such notice does not authorize
15 any noncompliance with, or Modification of, this Permit.
- 16 I.E.12 Certification of Construction or Modification
17 The Permittees may not commence treatment, storage, or disposal of dangerous wastes in a
18 new or modified portion of TSD units subject to this Permit until:
19 i. The Permittees have submitted to Ecology, by certified mail, overnight express mail, or
20 hand delivery, a letter signed by the Permittees, and a registered professional engineer,
21 stating that the TSD unit has been constructed or modified in compliance with the
22 Conditions of this Permit; and,
23 ii. Ecology has inspected the modified or newly constructed TSD unit, and finds that it is in
24 compliance with the Conditions of this Permit; or
25 iii. Within fifteen (15) days of the date of receipt of the Permittees' letter, the Permittees have
26 not received notice from Ecology of its intent to inspect, prior inspection is waived, and
27 the Permittees may commence treatment, storage, and disposal of dangerous waste.
- 28 I.E.13 Anticipated Noncompliance
29 The Permittees shall give at least thirty (30) days advance notice to Ecology of any planned
30 changes in the Facility subject to this Permit, or planned activity which might result in
31 noncompliance with Permit requirements.
32 If thirty (30) days advance notice is not possible, then the Permittees shall give notice
33 immediately after the Permittees become aware of the anticipated noncompliance. Such
34 notice does not authorize any noncompliance with, or Modification of, this Permit.
- 35 I.E.14 Transfer of Permits
36 This Permit may be transferred to a new owner only if it is modified, or revoked and reissued,
37 pursuant to WAC 173-303-830(3)(b). The Permit may be transferred to a new Co-operator in
38 accordance with the provisions of WAC 173-303-830(2). Before transferring ownership or
39 operation of the Facility during its operating life, the Permittees shall notify the new owner or
40 Co-operator, in writing, of the requirements of WAC 173-303-600 and -806, and this Permit.

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I.E.15 Immediate Reporting

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

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

- a. Name, address, and telephone number of the Permittee responsible for the release or noncompliant activity;
- b. Name, location, and telephone number of the unit at which the release occurred;
- c. Date, time, and type of incident;
- d. Name and quantity of material(s) involved;
- e. The extent of injuries, if any;
- f. An assessment of actual or potential hazard to the environment and human health, where this is applicable;
- g. Estimated quantity of released material that resulted from the incident; and,
- h. 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 Ecology immediately, a brief account must be entered within two (2) working days, into the TSD Operating Record, for a TSD unit, or into the Facility Operating Record, inspection log, or separate spill log, for non-TSD units. This account must include: the time and date of the release, the location and cause of the release, the type and quantity of material released, and a brief description of any response actions taken or planned.

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

I.E.16 Written Reporting

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

- 1 I.E.17 Manifest Discrepancy Report
- 2 I.E.17.a For dangerous waste received from outside the Facility, whenever a significant discrepancy in
3 a manifest is discovered, the Permittees shall attempt to reconcile the discrepancy. If not
4 reconciled within fifteen (15) days of discovery, the Permittees shall submit a letter report in
5 accordance with WAC 173-303-370(4), including a copy of the applicable manifest or
6 shipping paper, to Ecology.
- 7 I.E.17.b For dangerous waste which is being transported within the Facility (i.e., shipment of on-site
8 generated dangerous waste), whenever a significant discrepancy in the shipping papers (see
9 Condition II.Q.1.) is discovered, the Permittees shall attempt to reconcile the discrepancy. If
10 not reconciled within fifteen (15) days of discovery, the Permittees shall note the discrepancy
11 in the receiving unit's Operating Record.
- 12 I.E.18 Unmanifested Waste Report
- 13 The Permittees shall follow the provisions of WAC 173-303-370 for the receipt of any
14 dangerous waste shipment from off-site. The Permittees shall also submit a report in
15 accordance with WAC 173-303-390(1) to Ecology within fifteen (15) days of receipt of any
16 unmanifested dangerous waste shipment received from off-site sources.
- 17 I.E.19 Other Noncompliance
- 18 The Permittees shall report to Ecology all instances of noncompliance, not otherwise required
19 to be reported elsewhere in this Permit, at the time the Annual Dangerous Waste Report is
20 submitted.
- 21 I.E.20 Other Information
- 22 Whenever the Permittees become aware that they have failed to submit any relevant facts in a
23 Permit application, closure plan, or post-closure plan, or submitted incorrect information in a
24 Permit application, closure plan, or post-closure plan, or in any report to Ecology, the
25 Permittees shall promptly submit such facts or corrected information.
- 26 I.E.21 Reports, Notifications and Submissions
- 27 All written reports, notifications or other submissions, which are required by this Permit to be
28 sent, or given to the Director or Ecology, should be sent certified mail, overnight express
29 mail, or hand delivered, to the current address and telephone number shown below. This
30 address and telephone number may be subject to change.
- 31 Department of Ecology
32 200 Area Section
33 1315 West Fourth Avenue
34 Kennewick, Washington 99336
35 Telephone: (509) 735-7581
- 36 Telephonic and oral reports/notifications also need to be provided to Ecology's Kennewick
37 Office.
- 38 Ecology shall give the Permittees written notice of a change in address or telephone number.
39 It is the responsibility of the Permittees to ensure any required reports, notifications, or other
40 submissions are transmitted to the addressee listed in this Condition. However, the
41 Permittees shall not be responsible for ensuring verbal and written correspondence reaches a
42 new address or telephone number until after their receipt of Ecology's written notification.

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I.E.22 Annual Report

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

I.F SIGNATORY REQUIREMENT

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

I.G CONFIDENTIAL INFORMATION

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

I.H DOCUMENTS TO BE MAINTAINED AT FACILITY SITE

The Permittees shall maintain at the Facility, or some other location approved by Ecology, the following documents and amendments, revisions, and modifications to these documents:

1. This Permit and all Attachments;
2. All dangerous waste Part B Permit applications, post-closure Permit applications; and closure plans; and,
3. The Facility Operating Record.

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

1 **II GENERAL FACILITY CONDITIONS**

2 **II.A FACILITY CONTINGENCY PLAN**

3 II.A.1 The Permittees shall immediately carry out applicable provisions of the Hanford Emergency
4 Response Plan as provided in Attachment 4, pursuant to WAC 173-303-360(2), whenever
5 there is a release of dangerous waste, or dangerous waste constituents, or other emergency
6 circumstance, either of which threatens human health or the environment.

7 II.A.2 The Permittees shall comply with the requirements of WAC 173-303-350(4), as provided in
8 The Hanford Emergency Response Plan (Attachment 4). The Hanford Emergency Response
9 Plan provides reference to the need for unit-specific contingency documentation included in
10 Part III of this Permit.

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

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

20 **II.B PREPAREDNESS AND PREVENTION**

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

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

26 II.B.3 The Permittees shall maintain access to communications or alarms pursuant to WAC 173-
27 303-340(2), as provided in the Hanford Emergency Response Plan (Attachment 4) and unit-
28 specific contingency plans.

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

31 **II.C PERSONNEL TRAINING**

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

- 1 II.C.2 All Hanford Facility personnel shall receive general Facility training within six (6) months of
2 hire. This training shall provide personnel with orientation of dangerous waste management
3 activities being conducted at the Hanford Facility. This training shall include:
- 4 II.C.2.a. Description of emergency signals and appropriate personnel response;
- 5 II.C.2.b. Identification of contacts for information regarding dangerous waste management activities;
- 6 II.C.2.c. Introduction to waste minimization concepts;
- 7 II.C.2.d. Identification of contact(s) for emergencies involving dangerous waste; and
- 8 II.C.2.e. Familiarization with the applicable portions of the Hanford Emergency Response Plan.
- 9 II.C.3 Description of training plans for personnel assigned to TSD units subject to this Permit are
10 delineated in the unit-specific Chapters in Parts III, V, and/or VI of this Permit.
- 11 II.C.4 The Permittees shall provide the necessary training to non-Facility personnel (i.e., visitors,
12 sub-contractors), as appropriate, for the locations of such personnel, and the activities that
13 will be undertaken. At a minimum, this training shall describe dangerous waste management
14 hazards at the Facility.

15 **II.D WASTE ANALYSIS**

- 16 II.D.1 All waste analyses required by this Permit shall be conducted in accordance with a written
17 waste analysis plan (WAP), or sampling and analysis plan (SAP). Operating TSD units shall
18 have a WAP, which shall be approved through incorporation of the TSD unit into Part III of
19 this Permit. Closing TSD units, and units in post-closure, should have a SAP and, if
20 necessary, a WAP, which shall be approved through incorporation of the TSD unit into Part V
21 and/or VI of this Permit.
- 22 II.D.2 Until a WAP is implemented in accordance with Condition II.D.1., any unit(s) identified in
23 Parts III, V, and/or VI of this Permit, without a unit-specific WAP approved by Ecology, shall
24 not treat, store, or dispose of dangerous waste, unless specified otherwise by Ecology in
25 writing.
- 26 II.D.3 Each TSD unit WAP shall include:
- 27 i. The parameters for which each dangerous waste will be analyzed, and the rationale for
28 selecting these parameters; (i.e., how analysis for these parameters will provide sufficient
29 information on the waste properties to comply with WAC 173-303-300(1), (2), (3), and
30 (4);
- 31 ii. The methods of obtaining or testing for these parameters;
- 32 iii. The methods for obtaining representative samples of wastes for analysis (representative
33 sampling methods are discussed in WAC 173-303-110(2);
- 34 iv. The frequency with which analysis of a waste will be reviewed, or repeated, to ensure
35 that the analysis is accurate and current;
- 36 v. The waste analyses which generators have agreed to supply;
- 37 vi. Where applicable, the methods for meeting the additional waste analysis requirements for
38 specific waste management methods, as specified in WAC 173-303-140(4)(b),
39 173-303-395(1), 173-303-630 through 173-303-670, and 40 CFR 264.1034, 264.1063,
40 284(a), and 268.7, for final status facilities;
- 41 vii. For off-site facilities, the procedures for confirming that each dangerous waste received
42 matches the identity of the waste specified on the accompanying manifest, or shipping
43 paper. This includes at least:

- 1 (1) The procedure for identifying each waste movement at the Facility; and,
2 (2) The method for obtaining a representative sample of the waste to be identified, if the
3 identification method includes sampling.

4 viii. For surface impoundments exempted from Land Disposal Restrictions (LDR) under
5 40 CFR 268.4(a), incorporated by reference in WAC 173-303-140(2), the procedures and
6 schedules for:

- 7 ■ The sampling of impoundment contents;
8 ■ The analysis of test data; and
9 ■ The annual removal of residues that are not delisted under 40 CFR 260.22, or which
10 exhibit a characteristic of hazardous waste and either;
11 A) Do not meet applicable treatment standards of 40 CFR Part 268, Subpart D; or
12 B) Where no treatment standards have been established:
13 i) Such residues are prohibited from land disposal under 40 CFR 268.32, or RCRA
14 section 3004(d); or
15 ii) Such residues are prohibited from land disposal under 40 CFR 268.33(f); and

16 ix. For off-site facilities, the procedures for confirming that each dangerous waste received
17 matches the identity of the waste specified on the accompanying manifest, or shipping
18 paper. This includes, at least:

- 19 (1) The procedure for identifying each waste movement at the Facility; and
20 (2) The method for obtaining a representative sample of the waste to be identified, if the
21 identification method includes sampling.

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

26 II.E QUALITY ASSURANCE/QUALITY CONTROL

27 II.E.1 All WAPs and SAPs required by this Permit shall include a quality assurance/quality control
28 (QA/QC) plan, or equivalent, to document all monitoring procedures so as to ensure that all
29 information, data, and resulting decisions are technically sound, statistically valid, and
30 properly documented. Each QA/QC plan shall include, or contain a reference to another
31 document, which will be used and includes, the elements defined in Conditions II.E.2. and
32 II.E.3. The QA/QC plan may be part of a SAP, WAP, or equivalent.

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

34 II.E.2.a Data Collection Strategy section including, but not limited to, the following:

- 35 a. A description of the intended uses for the data, and the necessary level of precision and
36 accuracy for those intended uses; and,
37 b. A description of methods and procedures to be used to assess the precision, accuracy, and
38 completeness of the measurement data;

- 1 II.E.2.b A Sampling section which shall include or describe, and reference or cite:
- 2 a. Sampling methods including the identification of sampling equipment, a description of
- 3 purging procedures, and a description of decontamination procedures to be used;
- 4 b. Criteria for selecting appropriate sampling locations, depths, etc., or identification and
- 5 justification of sample collection points and frequencies;
- 6 c. Criteria for providing a statistically sufficient number of samples as defined in EPA
- 7 guidance, or criteria for determining a technically sufficient number of measurements to
- 8 meet the needs of the project as determined through the Data Quality Objective (DQO)
- 9 planning process;
- 10 d. Methods for, or specification of, measuring all necessary ancillary data;
- 11 e. Criteria for, or specification of, determining conditions under which sampling should be
- 12 conducted;
- 13 f. Criteria for establishing, or specification of, which parameters are to be measured at each
- 14 sample collection point, and the frequency that each parameter is to be measured;
- 15 g. Criteria for, or specification of, identifying the type of sampling (e.g., composites vs.
- 16 grabs), and number of samples to be collected;
- 17 h. Criteria for, or specification of, measures to be taken to prevent contamination of the
- 18 sampling equipment and cross contamination between sampling points;
- 19 i. Methods and documentation of field sampling operations and procedure descriptions, as
- 20 appropriate, including:
- 21 (1) Documentation of procedures for preparation of reagents or supplies, which become
- 22 an integral part of the sample (e.g., filters and absorbing reagents);
- 23 (2) Procedure descriptions and forms for recording the exact location, sampling
- 24 conditions, sampling equipment, and visual condition of samples;
- 25 (3) Documentation of specific sample preservation method;
- 26 (4) Calibration of field devices;
- 27 (5) Collection of replicate samples;
- 28 (6) Submission of field-biased blanks, where appropriate;
- 29 (7) Potential interferences present at the facility;
- 30 (8) Field equipment listing and sample containers;
- 31 (9) Sampling order; and,
- 32 (10) Descriptions of decontamination procedures.
- 33 j. Selection of appropriate sample containers, as applicable;
- 34 k. Sample preservation methods, as applicable; and,

- 1 I. Chain-of-custody procedure descriptions as applicable, including:
- 2 (1) Standardized field tracking reporting forms to establish sample custody in the field
- 3 prior to, and during shipment; and,
- 4 (2) Pre-prepared sample labels containing all information necessary for effective sample
- 5 tracking, except where such information is generated in the field, in which case,
- 6 blank spaces shall be provided on the pre-prepared sampling label.
- 7 II.E.2.c Where applicable, a field measurements section which shall address:
- 8 a. Selecting appropriate field measurement locations, depths, etc.;
- 9 b. Providing a statistically sufficient number of field measurements as defined in EPA
- 10 guidance, or criteria for determining a technically sufficient number of measurements to
- 11 meet the needs of the project as determined through the DQO process;
- 12 c. Measuring all necessary ancillary data;
- 13 d. Determining conditions under which field measurements should be conducted;
- 14 e. Determining which media are to be addressed by appropriate field measurements (e.g.,
- 15 ground water, air, soil, sediment, etc.);
- 16 f. Determining which parameters are to be measured and where;
- 17 g. Selecting the frequency of field measurement and length of field measurement period;
- 18 and,
- 19 h. Documenting field measurement operations and procedures, including:
- 20 (1) Descriptions of procedures and forms for recording raw data and the specific
- 21 location, time, and sampling conditions;
- 22 (2) Calibration of field devices;
- 23 (3) Collection of replicate measurements;
- 24 (4) Submission of field-biased blanks, where appropriate;
- 25 (5) Potential interferences present at the facility;
- 26 (6) Field equipment listing; and,
- 27 (7) Descriptions of decontamination procedures.
- 28 II.E.2.d Where applicable, a Sample Analysis Section which shall specify the following:
- 29 i. Chain-of-custody procedures, including:
- 30 (1) Certification that all samples obtained for analysis will be delivered to a responsible
- 31 person, at the recipient laboratory, who is authorized to sign for incoming field
- 32 samples, obtain documents of shipment, and verify the data entered onto the sample
- 33 custody records;
- 34 (2) Provision for a laboratory sample custody log; and,
- 35 (3) Specification of chain-of-custody procedures for sample handling, storage, and
- 36 disbursement for analysis.
- 37 ii. Sample storage procedure descriptions and storage times;
- 38 iii. Sample preparation methods;
- 39 iv. Descriptions of analytical procedures, including:

- 1 (1) Scope and application of the procedure;
- 2 (2) Sample matrix;
- 3 (3) Potential interferences;
- 4 (4) Precision and accuracy of the methodology; and,
- 5 (5) Method detection limits.
- 6 v. Descriptions of calibration procedures and frequency;
- 7 vi. Data reduction, validation, and reporting;
- 8 vii. Internal laboratory quality control checks, laboratory performance, and systems audits
9 and frequency, including:
 - 10 (1) Method blank(s);
 - 11 (2) Laboratory control sample(s);
 - 12 (3) Calibration check sample(s);
 - 13 (4) Replicate sample(s);
 - 14 (5) Matrix-spiked sample(s);
 - 15 (6) "Blind" quality control;
 - 16 (7) Control charts;
 - 17 (8) Surrogate samples;
 - 18 (9) Zero and span gases; and,
 - 19 (10) Reagent quality control checks.
- 20 II.E.3 Each QA/QC plan shall include a Data Management Plan, or equivalent, to document and
21 track data and results. This plan shall identify and establish data documentation materials and
22 procedures, project or unit file requirements, and project-related progress reporting
23 procedures and documents. The storage location for the raw data shall be identified. The
24 plan shall also provide the format to be used to record and, for projects, present the validated
25 and invalidated data and conclusions. The Data Management Plan shall include the following
26 as applicable:
- 27 II.E.3.a A data record including the following:
 - 28 a. Unique sample or field measurement code;
 - 29 b. Sampling or field measurement location including surveyed horizontal coordinates and
30 elevation of the sample location, and sample or measurement type;
 - 31 c. Sampling or field measurement raw data;
 - 32 d. Laboratory analysis identification (ID) number;
 - 33 e. Result of analysis (e.g., concentration);
 - 34 f. Elevations of reference points for all ground water level measurements, including water
35 level elevation, top of casing elevation, and ground surface elevation; and,
 - 36 g. Magnetic computer records of all ground water, soil, surface water, and sediment
37 analytical data.
- 38

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2 Tabular displays, as appropriate, illustrating:
3 a. Unsorted validated and invalidated data;
4 b. Results for each medium and each constituent monitored;
5 c. Data reduction for statistical analysis;
6 d. Sorting of data by potential stratification factors (e.g., location, soil layer, topography);
7 and,
8 e. Summary data.
- 9 II.E.3.b Graphical displays (e.g., bar graphs, line graphs, area or plan maps, isopleth plots, cross-
10 sectional plots or transects, three dimensional graphs, etc.), as appropriate, presenting the
11 following:
12 a. Displays of sampling location and sampling grid;
13 b. Identification of boundaries of sampling area and areas where more data is required;
14 c. Displays of concentrations of contamination at each sampling location;
15 d. Displays of geographical extent of contamination;
16 e. Aerial and vertical displays of contamination concentrations, concentration averages, and
17 concentration maxima, including isoconcentration maps for contaminants found in
18 environmental media at the Facility;
19 f. Illustrations of changes in concentration in relation to distance from the source, time,
20 depth, or other parameters;
21 g. Identification of features affecting intramedia transport and identification of potential
22 receptors;
23 h. For each round of ground water level measurements, maps showing the distribution of
24 head measurements in each aquifer; and,
25 i. For each well, provide a hydrograph that shows the distribution of water level
26 measurements taken during the time interval of the investigation.
- 27 II.E.4 Unless otherwise agreed upon in writing by Ecology, the Permittees shall provide notification
28 of availability to Ecology of all data obtained pursuant to this Permit within thirty (30) days
29 of receipt by the Permittees, or after completion of QA/QC activities, if applicable. If
30 Ecology agrees that data will be obtained on a routine basis for a particular unit, the
31 Permittees shall only be required to provide notification of data availability within thirty (30)
32 days of first availability, along with a statement as to expected frequency of future data. If
33 routine data is not acquired at the stated expected frequency, the Permittees shall notify
34 Ecology within thirty (30) days with an explanation and revision, if applicable. This
35 notification requirement shall also apply to any other information obtained from activities
36 conducted, or data obtained, that may influence activities pursuant to this Permit.
- 37 II.E.5 The level of QA/QC for the collection, preservation, transportation, and analysis of each
38 sample which is required for implementation of this Permit, may be based upon Ecology
39 approved DQO for the sample. These DQOs shall be approved by Ecology, in writing, or
40 through incorporation of unit plans and Permits into Parts III, V, and/or VI of this Permit.

1 **II.F GROUND WATER AND VADOSE ZONE MONITORING**

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

13 **II.F.1 Purgewater Management**

14 Purgewater shall be handled in accordance with the requirements set forth in Attachment 5,
15 *Purgewater Management Plan*.

16 **II.F.2 Well Remediation and Abandonment**

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

23 **II.F.2.b** The Permittees shall evaluate resource protection wells subject to this Permit according to
24 Sections 4.1. through 4.8.3. of the *Hanford Well Remediation and Decommissioning Plan*
25 (Attachment 6) and the Policy on Remediation of Existing Wells and Acceptance Criteria for
26 RCRA and CERCLA, June 1990 (Attachment 7), to determine if a well has a potential use as
27 a qualified well. The Permittees shall abandon or remediate unusable wells according to the
28 requirements of Chapter 18.104 RCW, Chapter 173-160 WAC, and Chapter 173-162 WAC to
29 ensure that the integrity of wells subject to this Permit is maintained. The time frame for this
30 remediation will be specified in Parts III, V, and/or VI of this Permit.

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

33 **II.F.2.d** For wells subject to this Permit, the Permittees shall achieve full compliance with Chapter
34 173-160 WAC and Chapter 18.104 RCW consistent with a rolling five (5) year schedule
35 agreed to by Ecology and the Permittees. This process shall be completed by the year 2012.

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

37 All wells constructed pursuant to this Permit shall be constructed in compliance with Chapter
38 173-160 WAC.

39 **II.G SITING CRITERIA**

40 The Permittees shall comply with the applicable notice of intent and siting criteria of WAC
41 173-303-281 and WAC 173-303-282, respectively.

42 **II.H RECORDKEEPING AND REPORTING**

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

- 1 **II.H.1** Cost Estimate for Facility Closure
- 2 The Permittees shall submit an annual report updating projections of anticipated costs for
3 closure and post-closure of TSD units incorporated into Parts III, V, and/or VI of this Permit.
4 This report will be submitted annually, by October 31, to Ecology and reflect cost updates as
5 of September 30, of the past Fiscal Year.
- 6 **II.H.2** Cost Estimate for Post-Closure Monitoring and Maintenance
- 7 The Permittees shall submit an annual report updating projections of anticipated costs for
8 post-closure monitoring and maintenance for TSD units incorporated into Parts III, V, and/or
9 VI of this Permit. This report will be submitted annually, by October 31, to Ecology and
10 reflect cost updates as of September 30, of the past Fiscal Year.
- 11 **II.H.3** The Permittees are exempt from the requirements of WAC 173-303-620
- 12 **II.I** **FACILITY OPERATING RECORD**
- 13 **II.I.1** The Permittees shall maintain a written Facility Operating Record until ten (10) years after
14 post-closure, or corrective action is complete and certified for the Facility, whichever is later.
15 Except as specifically provided otherwise in this Permit, the Permittees shall also record all
16 information referenced in this Permit in the Facility Operating Record within seven (7)
17 working days after the information becomes available. A TSD unit-specific Operating Record
18 shall be maintained for each TSD unit at a location identified in Parts III, V, and VI of this
19 Permit. Each TSD unit-specific Operating Record shall be included by reference in the
20 Facility Operating Record. Information required in each TSD unit-specific Operating Record
21 is identified on a unit-by-unit basis in Part III, V, or VI of this Permit. The Facility Operating
22 Record shall include, but not be limited to, the following information:
- 23 **II.I.1.a** A description of the system(s) currently utilized to identify and map solid waste management
24 units and their locations. The description of the system(s) is required to include an
25 identification of on-site access to the system's data, and an on-site contact name and
26 telephone number. In addition to, or as part of, this system(s), the Permittees shall also
27 maintain a list identifying active ninety (90)-day waste storage areas, and dangerous waste
28 satellite accumulation areas and their locations. The list shall identify the location, the
29 predominant waste types managed at the area, and a date identifying when the list was
30 compiled. Maps shall be provided by the Permittees upon request by Ecology;
- 31 **II.I.1.b** Records and results of waste analyses required by WAC 173-303-300;
- 32 **II.I.1.c** An identification of the system(s) currently utilized to generate Occurrence Reports. The
33 identification of the system(s) is required to include a description, an identification of an on-
34 site location of hard-copy Occurrence Reports, an identification of on-site access to the
35 system's data, and an on-site contact name and telephone number;
- 36 **II.I.1.d** Copies of all unmanifested waste reports;
- 37 **II.I.1.e** The Hanford Emergency Response Plan, as well as summary reports, and details of all
38 incidents that require implementing the contingency plan, as specified in WAC 173-303-
39 360(2)(k);
- 40 **II.I.1.f** An identification of the system(s) currently utilized and being developed to record personnel
41 training records and to develop training plans. The identification of the system(s) is required
42 to include a description, an identification of on-site access to the system's data, and an on-site
43 contact name and telephone number;

- 1 II.I.1.g Preparedness and prevention arrangements made pursuant to WAC 173-303-340(4) and
2 documentation of refusal by state or local authorities that have declined to enter into
3 agreements in accordance with WAC 173-303-340(5);
- 4 II.I.1.h Reserved Condition
- 5 II.I.1.i An identification and description of the report containing closure and post-closure cost
6 estimates required by Conditions II.H.1. and II.H.2. The identification shall provide the on-
7 site location and document number of the report;
- 8 II.I.1.j Documentation (e.g., waste profile sheets) of all dangerous waste transported to or from any
9 TSD unit subject to this Permit. This documentation shall be maintained in the receiving
10 unit's Operating Record from the time the waste is received;
- 11 II.I.1.k An identification of the system(s) currently utilized to cross-reference waste locations to
12 specific manifest document numbers. The identification of the system(s) is required to
13 include a thorough description, an identification of an on-site location of a hard-copy data
14 report, an identification of on-site access to the system's data, and an on-site contact name
15 and telephone number;
- 16 II.I.1.l Reserved Condition
- 17 II.I.1.m Annual Reports required by this Permit;
- 18 II.I.1.n An identification of all systems currently utilized to record monitoring information, including
19 all calibration and maintenance records, and all original strip chart recordings for continuous
20 monitoring instrumentation. The identification of systems shall include a description of the
21 systems. The descriptions shall include a confirmation that the criteria of Condition I.E.10.e.
22 is provided by the utilization of the system. The identification of the systems shall also
23 include an identification of on-site access to the system's data, an on-site contact name and
24 telephone number;
- 25 II.I.1.o Reserved Condition
- 26 II.I.1.p Summaries of all records of ground water corrective action required by WAC 173-303-645;
- 27 II.I.1.q An identification of the system(s) currently being utilized and being developed to evaluate
28 compliance with the Conditions of this Permit and with Chapter 173-303 WAC. The
29 identification of the system(s) shall include a description of the system(s), an identification of
30 on-site access to the system's data, and an on-site contact name and telephone number. The
31 description of the system(s) shall also include a definition of which portion(s) of the
32 system(s) is accessible to Ecology;
- 33 II.I.1.r All deed notifications required by this Permit (to be included by reference);
- 34 II.I.1.s All inspection reports required by this Permit; and,
- 35 II.I.1.t All other reports as required by this Permit, including ECNs and NCRs.
- 36 II.I.2 The descriptions of systems and/or reports required in Conditions II.I.1.a., II.I.1.c., II.I.1.f.,
37 II.I.1.i., II.I.1.k., II.I.1.n., and II.I.1.q., shall be placed in the Facility Operating Record, by
38 September 28, 1995.

1 **II.J FACILITY CLOSURE**

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

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

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

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

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

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

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

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

21 **II.K SOIL/GROUND WATER CLOSURE PERFORMANCE STANDARDS**

22 II.K.1 For purposes of Condition II.K., the term "clean closure" shall mean the status of a TSD unit
23 at the Facility which has been closed to the cleanup levels prescribed by WAC 173-303-
24 610(2)(b), provided certification of such closure has been accepted by Ecology.

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

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

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

40 II.K.3.b For "modified closures," the Permittees shall provide periodic assessments of the TSD unit to
41 determine the effectiveness of the closure. The specific details of the periodic assessments
42 shall be specified in Parts III, V, and/or VI of this Permit. The periodic assessments shall
43 include, as a minimum, a compliance monitoring plan in accordance with WAC 173-340-410
44 that will address the assessment requirements on a unit-by-unit basis. At least one (1)

1 assessment activity shall take place after a period of five (5) years from the completion of
2 closure, which will demonstrate whether the soils and ground water have been maintained at
3 or below the allowed concentrations as specified in Parts III, V, or VI of this Permit. Should
4 the required assessment activities identify contamination above the allowable limits as
5 specified in Parts III, V, and/or VI, the TSD unit must be further remediated, or the
6 requirements of II.K.4. must be followed. Should the required assessment activities
7 demonstrate that contamination has diminished, or remained the same, the Permittees may
8 request that Ecology reduce, or eliminate the assessment activities and/or institutional
9 controls.

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

12 II.K.4 Any TSD unit for which Conditions II.K.1., II.K.2., or II.K.3., are not chosen as the closure
13 option, closing the TSD unit as a landfill may be selected. Closure and post-closure of the
14 TSD unit as a landfill, must follow the procedures and requirements specified in WAC 173-
15 303-610.

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

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

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

32 II.L DESIGN AND OPERATION OF THE FACILITY

33 II.L.1 Proper Design and Construction

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

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

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

- 1 **II.L.2.b** During construction of a project subject to this Permit, changes to the approved designs, plans
2 and specifications shall be formally documented with an Engineering Change Notice (ECN).
3 All ECNs shall be maintained in the TSD unit-specific Operating Record and shall be made
4 available to Ecology upon request or during the course of an inspection. The Permittees shall
5 provide copies of ECNs affecting any critical system to Ecology within five (5) working days
6 of initiating the ECN. Identification of critical systems shall be included by the Permittees in
7 each TSD unit-specific dangerous waste Permit application, closure plan or Permit
8 Modification, as appropriate. Ecology will review an ECN modifying a critical system, and
9 inform the Permittees in writing within two (2) working days, whether the proposed ECN,
10 when issued, will require a Class 1, 2, or 3 Permit Modification. If after two (2) working days
11 Ecology has not responded, it will be deemed as acceptance of the ECN by Ecology.
- 12 **II.L.2.c** During construction of a project subject to this Permit, any work completed which does not
13 meet or exceed the standards of the approved design, plans and specifications shall be
14 formally documented with a Nonconformance Report (NCR). All NCRs shall be maintained
15 in the TSD unit-specific Operating Record and shall be made available to Ecology upon
16 request, or during the course of an inspection. The Permittees shall provide copies of NCRs
17 affecting any critical system to Ecology within five (5) working days after identification of
18 the nonconformance. Ecology will review a NCR affecting a critical system and inform the
19 Permittees in writing, within two (2) working days, whether a Permit Modification is required
20 for any nonconformance, and whether prior approval is required from Ecology before work
21 proceeds, which affects the nonconforming item. If Ecology does not respond within two (2)
22 working days, it will be deemed as acceptance and no Permit Modification will be required.
- 23 **II.L.2.d** Upon completion of a construction project subject to this Permit, the Permittees shall produce
24 as-built drawings of the project which incorporate the design and construction modifications
25 resulting from all project ECNs and NCRs, as well as modifications made pursuant to WAC
26 173-303-830. The Permittees shall place the drawings into the Operating Record within
27 twelve (12) months of completing construction, or within an alternate period of time specified
28 in a unit-specific Condition in Part III or V of this Permit.
- 29 **II.L.3** **Facility Compliance**
- 30 The Permittees in receiving, storing, transferring, handling, treating, processing, and
31 disposing of dangerous waste, shall design, operate, and/or maintain the Facility in
32 compliance with all applicable federal, state, and local laws and regulations.
- 33 **II.M** **SECURITY**
- 34 The Permittees shall comply with the security provisions of WAC 173-303-310. The
35 Permittees may comply with the requirements of WAC 173-303-310(2) on a unit-by-unit
36 basis.
- 37 **II.N** **RECEIPT OF DANGEROUS WASTES GENERATED OFF-SITE**
- 38 **II.N.1** **Receipt of Off-Site Waste**
- 39 The Permittees shall comply with Conditions II.N.2. and II.N.3. for any dangerous wastes
40 which are received from sources outside the United States, or from off-site generators.
- 41 **II.N.2** **Waste From Sources Outside the United States**
- 42 The Permittees shall meet the requirements of WAC 173-303-290(1) for waste received from
43 outside the United States.

1 II.N.3 Notice to Generator
2 For waste received from off-site sources (except where the owner/operator is also the
3 generator), the Permittees shall inform the generator in writing that they have the appropriate
4 Permits for, and will accept, the waste the generator is shipping, as required by WAC 173-
5 303-290(3). The Permittees shall keep a copy of this written notice as part of the TSD unit-
6 specific Operating Record.

7 **II.O GENERAL INSPECTION REQUIREMENTS**

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

13 II.O.1.a The 100, 200 East, 200 West, 300, 400, and 1100 areas shall be inspected annually.

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

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

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

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

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

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

34 **II.P MANIFEST SYSTEM**

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

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

1 **II.Q ON-SITE TRANSPORTATION**

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

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

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

10 II.Q.1.c Description of waste;

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

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

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

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

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

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

18 **II.R EQUIVALENT MATERIALS**

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

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

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

33 **II.S LAND DISPOSAL RESTRICTIONS (LDR)**

34 Unless specifically identified otherwise in the FFACO, the Permittees shall comply with all
35 LDR requirements as set forth in WAC 173-303-140.

36 **II.T ACCESS AND INFORMATION**

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

1 **II.U MAPPING OF UNDERGROUND PIPING**

2 II.U.1 By September 30, 1996, the Permittees shall submit a report to Ecology, which describes the
3 procedures proposed to be used to compile the information required by Conditions II.U.2.,
4 II.U.3., and II.U.4. The report shall describe the methods which will be used to retrieve the
5 piping information, the estimated accuracy of the data to be provided, QA/QC control
6 techniques to be employed, including field verification activities (i.e., surveying, ground
7 penetrating radar, etc.), to support information gathered from existing drawings, and
8 conceptual examples of the product which will be submitted.

9 II.U.2 By September 29, 1997, the Permittees shall make an initial submittal to Ecology of maps
10 showing the location of dangerous waste underground pipelines (including active, inactive,
11 and abandoned pipelines which contain or contained dangerous waste subject to the
12 provisions of Chapter 173-303 WAC), on the Facility, which are located outside of the fences
13 enclosing the 200 East, 200 West, 300, 400, 100N, and 100K Areas. These maps shall
14 identify the origin, destination, size, depth, and type (i.e., reinforced concrete, stainless steel,
15 cast iron, etc.), of each pipe and the location of their diversion boxes, valve pits, seal pots,
16 catch tanks, receiver tanks, and pumps, utilizing Washington State Plane Coordinates, NAD
17 83(91), meters. If the type of pipe material is not documented on existing drawings, the most
18 probable material type shall be provided. These maps shall be accompanied by a description
19 of the QA/QC control measures used to compile the maps.

20 The age of all pipes required to be identified pursuant to this Condition, shall be documented
21 in an Attachment to the submittal. If the age cannot be documented, an estimate of the age of
22 the pipe shall be provided, based upon best engineering judgment.

23 These maps, and any Attachments, shall be maintained in the Facility Operating Record and
24 updated annually, after the initial submittal, with new or revised information. Each map
25 submittal required by this Condition shall incorporate information available six (6) months
26 before the scheduled submittal date.

27 II.U.3 By September 28, 1998, the Permittees shall make an initial submittal to Ecology of piping
28 schematics for dangerous waste underground pipelines (including active, inactive, and
29 abandoned pipelines, which contain or contained dangerous waste subject to the provisions of
30 Chapter 173-303 WAC) within the 200 East, 200 West, 300, 400, 100N, and 100K Areas.
31 The piping schematics shall identify the origin, destination, and direction of flow for each
32 pipe, as well as whether the pipe is active, inactive, or abandoned. These schematics need not
33 include the pipes within a fenced tank farm, or within a building/structure. These schematics
34 shall be accompanied by a description of the QA/QC control measures used to compile the
35 maps.

36 These schematics and any Attachments, shall be maintained in the Facility Operating Record
37 and updated annually, after the initial submittal, with new or revised information. Each map
38 submittal required by this Condition shall incorporate information available six (6) months
39 before the scheduled submittal date.

40 II.U.4 By September 28, 1998, the Permittees shall make an initial submittal, to Ecology, of maps
41 showing the location of dangerous waste underground pipelines (including active, inactive,
42 and abandoned pipelines, which contain or contained dangerous waste, subject to the
43 provisions of Chapter 173-303 WAC) within the 200 East, 200 West, 300, 400, 100N, and
44 100K Areas. These maps will incorporate information available six (6) months prior to the
45 scheduled submittal date. Thereafter, the maps will be updated on an annual basis to
46 incorporate additional information, as such information becomes available in accordance with
47 the FFACO milestone schedule. A schedule for the provision of map input shall be included
48 in the report specified in Condition II.U.1.

1 The maps shall identify the origin, destination, size, depth and type (i.e., reinforced concrete,
2 stainless steel, cast iron, etc.), of each pipe, and the location of their diversion boxes, valve
3 pits, seal pots, catch tanks, receiver tanks, and pumps, and utilize Washington State Plane
4 Coordinates, NAD 83(91), meters. If the type of pipe material is not documented on existing
5 drawings, the most probable material type shall be provided. These maps need not include the
6 pipes within a fenced tank farm or within a building/structure. These maps shall be
7 accompanied by a description of the QA/QC control used to compile the maps.

8 The age of all pipes required to be identified pursuant to this Condition shall be documented
9 in an Attachment to the submittal. If the age cannot be documented, an estimate of the age of
10 the pipe shall be provided based upon best engineering judgment.

11 These maps, and any Attachments, shall be maintained in the Facility Wide Operating Record
12 and updated annually, after the initial submittal, with new or revised information.

13 **II.V MARKING OF UNDERGROUND PIPING**

14 By September 29, 1997, the Permittees shall mark the underground pipelines identified in
15 Condition II.U.2. These pipelines shall be marked at the point they pass beneath a fence
16 enclosing the 200 East, 200 West, 300, 400, 100N, or 100K Areas, at their origin and
17 destination, at any point they cross an improved road, and every 100 meters along the pipeline
18 corridor where practicable. The markers shall be labeled with a sign that reads "Buried
19 Dangerous Waste Pipe" and shall be visible from a distance of fifteen (15) meters.

20 **II.W OTHER PERMITS AND/OR APPROVALS**

21 II.W.1 The Permittees shall be responsible for obtaining all other applicable federal, state, and local
22 Permits authorizing the development and operation of the Facility. To the extent that work
23 required by this Permit must be done under a Permit and/or approval pursuant to other
24 regulatory authority, the Permittees shall use their best efforts to obtain such Permits. Copies
25 of all documents relating to actions taken, pursuant to this Condition, shall be kept in the
26 Operating Record.

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

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

34 **II.X SCHEDULE EXTENSIONS**

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

44 Copies of all correspondence regarding schedule extensions shall be kept in the Operating
45 Record.

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

- 1 Appendix 2A Drawing H-13-000014, 616 NRDWSF Topographic Map, from Class 1
2 Modification for quarter ending June 30, 1995
- 3 Appendix 4B Drawing H-6-1553, Architectural Plan, Elevations and Sections, Rev. 4
4 and 2 ECNs from Class 1 Modification dated 7/98
- 5 Appendix 4B Drawing H-6-1556, Structural Plan and Sections, Rev. 4, and six ECNs
6 from Class 1 Modification dated 7/98
- 7 Appendix 7A Building Emergency Plan, HNF-IP-0263-616, dated July 1, 1998, as
8 amended in Class 2 Modification for Revision 5
- 9 Appendix 8A Training Plan, HNF-1276, Rev. 1, dated May 1998, as amended in Class 2
10 Modification for Revision 5
- 11 Appendix 11B Description of Procedures from Class 1 Modification for quarter ending
12 June 30, 1995
- 13 III.1.B. AMENDMENTS TO THE APPROVED PERMIT APPLICATION
- 14 III.1.B.a. Page 3-10, lines 11-17. Delete the first sentence of the paragraph and replace it with the
15 following: "To be acceptable at 616 NRDWSF, samples of nonradioactive waste streams
16 must be documented to have been sent to a laboratory for waste profiling when newly
17 identified, or whenever the process used, or raw materials usage changes, and at least
18 annually thereafter, to ensure that the waste designation assigned by the Solid Waste
19 Engineering staff (Section 3.2), is accurate, and in compliance with land ban restrictions."
- 20 III.1.B.b. Page 3-16, lines 29 and 30. The following line is added to the end of the paragraph: "The
21 laboratory verification results shall be obtained in accordance with WAC 173-303-110."
- 22 III.1.B.c. Page 2-16, lines 25 and 27. The address "7601 West Clearwater, Suite 102" shall be changed
23 to "1315 West Fourth Avenue" and the telephone number "509-546-2990" shall be changed
24 to "509-735-7581."
- 25 III.1.B.d. First Comment Package requested deletion
- 26 III.1.B.e. Table 7-1, Sections 3.1, 4.0 (first paragraph), 8.2, 8.3, 8.4, 11.0, and 12.0 are added as
27 enforceable portions of Appendix 7A.
- 28 III.1.B.f. Portions of DOE/RL-94-02 that are not made enforceable by inclusion in the applicability
29 matrix for that document, are not made enforceable by reference in this document.
- 30 III.1.B.g. Within thirty (30) days of issuance of this Permit, the Permittees will revise and submit to
31 Ecology, Section 9.5 of Appendix 7A, to more accurately identify the quantity and capacity
32 of spill control equipment available at the unit.
- 33 III.1.B.h. Appendix 7A, add "at 616 NRDWSF" to the titles of Sections 9.2, 9.4, and 9.5.
- 34 III.1.B.i. Before any waste is received at the unit, the Permittees will revise and submit to Ecology,
35 Sections 9.2, 9.4, and 9.5 of Appendix 7A, to include emergency equipment needed to
36 identify, measure, monitor, and protect against possible toxic fume hazards described in
37 Section 6.1.5. Upon approval by Ecology, this information shall be incorporated into this
38 Permit as a Class 1 Modification. If necessary, Ecology will amend the requirements through
39 a Class 2 or 3 Modification to the Permit.
- 40 III.1.B.j. Appendix 7A, Figure 1, revise title to read "616 Nonradioactive Dangerous Waste Storage
41 Facility Evacuation Routes."

- 1 III.1.B.k. Appendix 7A, Section 8.2. In the event of a WAC 173-303 emergency, the
2 Owner/Operator must notify Ecology, and appropriate local authorities, that the unit is
3 in compliance with Sections 8.2 and 8.3 of Appendix 7A before operations are
4 resumed in the affected areas.
- 5 III.1.B.l. The Permittee must review and immediately amend the emergency response
6 documentation, if necessary, whenever: (a) Applicable regulations, or the facility
7 Permit, are revised, (b) The plan fails in an emergency, (c) The unit changes (in its
8 design, construction, operation, maintenance, or other circumstances) in a way that
9 materially increases the potential for fires, explosions, or releases of dangerous waste
10 constituents, or in a way that changes the response necessary in an emergency, or (d)
11 The list of emergency equipment changes.
- 12 III.1.B.m. In first comment package asked to be deleted
- 13 III.1.B.n. The approved Waste Analysis Plan (WAP) is compliant for receipt of on-site waste
14 and off-site waste from USDOE owned and operated units (i.e., 712 Building and the
15 Federal Building). The Permittee is not to receive other off-site waste at this unit until
16 the WAP has been revised to include waste acceptance/verification criteria for the
17 receipt of off-site waste.

1
2
3
4 **CHAPTER 2**

5 **305-B Storage Facility**

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

9 **III.2.A. COMPLIANCE WITH APPROVED PERMIT APPLICATION**

10 The Permittees shall comply with all the requirements set forth in Attachment 18, including
11 all Class 1 Modifications specified below, and the Amendments specified in Condition
12 III.2.B. Enforceable portions of the application are listed below; all subsections, figures, and
13 tables included in these portions are also enforceable, unless stated otherwise:

14 Part A, Form 3, Permit Application, Revision 1 and from Class 1 Modification for quarter
15 ending June 30, 1998

16 Section 2.1.2 The 305-B Storage Unit, from Class 1 Modification for quarter ending
17 March 31, 1998

18 Section 2.2.1 General Requirement

19 Section 2.5 Performance Standard, from Class 1 Modification for quarter ending
20 March 31, 1998

21 Section 2.6 Buffer Monitoring Zones, from Class 1 Modification for quarter ending
22 March 31, 1998

23 Section 2.8 Manifest System, from Class 1 Modification for quarter ending
24 March 31, 1998

25 Chapter 3.0 Waste Characteristics, from Class 1 Modification for quarter ending
26 March 31, 1998

27 Chapter 4.0 Process Information, from Class 1 Modification for quarter ending
28 December 31, 1998

29 Chapter 6.0 Procedures to Prevent Hazards, from Class 1 Modification for quarter
30 ending December 31, 1998

31 Chapter 7.0 Contingency Plan, dated June 1 1998, as amended in Class 2 Modification
32 for Revision 5

33 Appendix 7A Building Emergency Plan for the 325 HWTUs, from Class 2 Modification
34 dated June 1, 1998

35 Chapter 8.0 Personnel Training, from Class 1 Modification for quarter ending
36 September 30, 1998

37 Chapter 11.0 Closure and Post-Closure Requirements, from Class 1 Modification for
38 quarter ending June 30, 1997

39

1	Chapter 12.0	Reporting and Recordkeeping, from Class 1 Modification for quarter
2		ending June 30, 1997
3	Section 13.8	Toxic Substances Control Act, from Class 1 Modification for quarter
4		ending June 30, 1997
5	Section 13.9	Other Requirements, from Class 1 Modification for quarter ending
6		June 30, 1997
7	Appendix 2A	Hanford Site and 300-Area Topographic Maps, Plates 2-2 Through 2-9

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

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

5 III.2.B.b. Page 3-5, line 41. The following text is added: "The 305-B personnel shall collect from the
6 generating unit(s) the information pursuant to 40 CFR 268.7(a) regarding LDR wastes, the
7 appropriate treatment standards, whether the waste meets the treatment standards, and the
8 certification that the waste meets the treatment standards, if necessary, as well as any waste
9 analysis data that supports the generator's determinations. If this information is not supplied
10 by the generating unit, then the 305-B personnel shall be responsible for completion and
11 transmittal of all subsequent information regarding LDR wastes, pursuant to 40 CFR
12 268.7(b). All waste streams must be re-characterized at least annually, or when generating
13 unit and/or 305-B personnel have reason to believe the waste stream has changed, to
14 determine compliance with LDR requirements in 40 CFR 268."

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

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

19 "Prior to acceptance of wastes at 305-B, confirmation of designation may be required (Section
20 3.2.4). The wastes, which shall undergo confirmation of designation, are identified in
21 Condition III.2.B.f. of this Permit and may be divided into two groups; those that easily yield
22 a representative sample (Category I), and those that do not (Category II). The steps for each
23 type are outlined below, along with a description of which wastes fall into each category:

24 Category I. If a waste which easily yields a representative sample is received, a representative
25 sample will be taken from the waste containers selected. If more than one phase is present,
26 each phase must be tested individually. The following field tests will be performed as
27 appropriate for the waste stream:

- 28 ■ Reactivity - HAZCAT™ oxidizer, cyanide, and sulfide tests. These tests will not be
29 performed on materials known to be organic peroxides, ethers, and/or water reactive
30 compounds.
- 31 ■ Flashpoint/explosivity - by HAZCAT™ flammability procedure, explosive atmosphere
32 meter¹, or a closed cup flashpoint measurement instrument¹.
- 33 ■ pH - by pH meter¹ or pH paper (SW-846-9041)². This test will not be performed on non-
34 aqueous materials.
- 35 ■ Halogenated organic compounds - by Chlor-D-Tect™ kits.
- 36 ■ Volatile organic compounds - by photo or flame ionization tester¹, by gas chromatography
37 with or without mass spectrometry, or by melting point and/or boiling point determination.

38 ¹ These instruments are field calibrated or checked for accuracy daily when in use.

39 ² The pH paper must have a distinct color change every 0.5 pH unit and each batch of paper
40 must be calibrated against certified pH buffers, or by comparison with a pH meter calibrated
41 with certified pH buffers.

1
2 If the sample data observed meets the parameters specified in its documentation, confirmation
3 of designation is complete and the waste may be accepted. If not, the waste is rejected and
4 returned to the generating unit, for sampling and analysis. The waste will be required to be
5 included with a resubmitted Chemical Disposal/Recycle Request (CD/RR) if generator
6 process knowledge or other information is not available to properly characterize and identify
7 the waste.

8 When mathematically possible, the Permittees shall perform confirmation on an equal number
9 of Category I and Category II containers.

10 Category II. If a representative sample is not easily obtained (for example, discarded
11 machinery or shop rags), or if the waste is a labpack or discarded laboratory reagent
12 container, the following steps will be performed:

13 a. Visually verify the waste. Examine each selected container to ensure that it matches the
14 data provided on the CD/RR form(s) provided to document the waste. Labpacks and
15 combination packages must be removed from the outer container. If the waste matches
16 the description specified in its documentation, confirmation of designation is complete
17 and the waste may be accepted. If not, the waste is rejected and returned to the generating
18 unit, and the generating unit revises and resubmits the documentation to reflect the actual
19 contents. If necessary, the waste shall be re-designated utilizing the designation methods
20 identified in WAC 173-303-070 through 173-303-100.”

21 III.2.B.e. Page 3-10, line 32. The following is added to the end of this section: “Wastes must be analyzed
22 using the Toxicity Characteristic Leaching Procedure (TCLP) in accordance with Appendix II of
23 40 CFR 261, as amended, in order to provide sufficient information for proper management, and
24 for decisions regarding LDR, pursuant to 40 CFR 268.”

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

40 Containers of the following are exempt from the confirmation calculation above: Laboratory
41 reagents or other unused products, such as paint, lubricants, solvent, or cleaning products,
42 whether received for redistribution, recycling, or as waste. To qualify for this exemption, such
43 materials must be received at 305-B in their original containers.”

44 III.2.B.g. The entire document contained in Appendix 7A (DOE/RL 90-01), excluding nuclear safety
45 information, is considered applicable to RCRA requirements and Washington State Dangerous
46 Waste Regulations, as applicable, in WAC 173-303.

1
2 **CHAPTER 3**

3 **PUREX Storage Tunnels**

4 The PUREX Storage Tunnels are mixed waste storage units consisting of two underground railroad
5 tunnels: Tunnel Number 1, designated 218-E-14, and Tunnel Number 2, designated 218-E-15. This
6 Chapter sets forth the operating Conditions for this TSD unit.

7 **III.3.A COMPLIANCE WITH APPROVED PERMIT APPLICATION**

8 The Permittees shall comply with all requirements set forth in Attachment 28, including all
9 Class 1 Modifications specified below, and the Amendments specified in Condition III.3.B, if
10 any exist. Enforceable portions of the application are listed below; all subsections, figures,
11 and tables included in these portions are also enforceable, unless stated otherwise:

12 Part A, Form 3, Permit Application, Revision 5

13 Section 2.1 The PUREX Storage Tunnels Description

14 Section 2.2 Topographic Map, including Class 1 Modifications from quarter ending
15 June 30, 1997

16 Chapter 3.0 Waste Analysis

17 Chapter 4.0 Process Information

18 Chapter 6.0 Procedures to Prevent Hazards

19 Chapter 7.0 Contingency Plan, dated May 1998, as amended in Class 2 Modification
20 for Revision 5

21 Chapter 8.0 Personnel Training

22 Chapter 10.0 Waste Minimization

23 Chapter 11.0 Closure and Financial Assurance

24 Chapter 12.0 Reporting and Recordkeeping

25 Chapter 13.0 Other Federal and State Laws

26 Appendix 2A Topographic Map

27 Appendix 3A Waste Analysis Plan for PUREX Storage Tunnels

28 Appendix 4A Engineering Drawings, including Class 1 Modifications from quarter
29 ending December 31, 1998

30 Appendix 7A Unit-Specific Contingency Plan for the 218-E-14 and 218-E-15 Storage
31 Tunnels, dated May 1998, as amended in Class 2 Modification for
32 Revision 5

33 Appendix 8A Dangerous Waste Training Plan for the PUREX Facility

34 **III.3.B AMENDMENTS TO THE APPROVED PERMIT APPLICATION (None Required)**

1 **CHAPTER 4**

2 **Liquid Effluent Retention Facility and 200 Area Effluent Treatment Facility**

3 This Chapter sets forth the operating Conditions for the Liquid Effluent Retention Facility (LERF) and the
4 Effluent Treatment Facility (ETF).

5 **III.4.A COMPLIANCE WITH APPROVED PERMIT APPLICATION**

6 The Permittees shall comply with all requirements set forth in Attachment 34, including the
7 Amendments specified in Condition III.4.B, if any exist. Enforceable portions of the
8 application are listed below (All subsections, figures, and tables included in these portions are
9 also enforceable, unless stated otherwise):

10 LERF Part A, Form 3, Permit Application, Revision 6

11 ETF Part A, Form 3, Permit Application, Revision 3

12 Section 2.2 Topographic Map

13 Section 3.2 Waste Analysis Plan

14 Chapter 4.0 Process Information, dated May 1998, as amended in Class 2 Modification
15 for Revision 5

16 Chapter 5.0 Ground Water Monitoring

17 Chapter 6.0 Procedures to Prevent Hazards, from Class 1 Modification for quarter
18 ending September 31, 1998

19 Chapter 7.0 Contingency Plan, dated May 1998, as amended in Class 2 Modification
20 for Revision 5

21 Chapter 8.0 Personnel Training

22 Chapter 11.0 Closure and Financial Assurance

23 Chapter 12.0 Reporting and Recordkeeping

24 Chapter 13.0 Other Federal and State Laws

25 Appendix 2A Topographic Map

26 Appendix 3A Waste Analysis Plan for the Liquid Effluent Retention Facility and 200
27 Area Effluent Treatment Facility, dated May 1998, as amended in Class 2
28 Modification for Revision 5

29 Appendix 4A Detailed Drawings for the Liquid Effluent Retention Facility

30 Appendix 4B Detailed Drawings for the 200 area Effluent Treatment Facility Container
31 Storage Area and Tank Systems

32 Appendix 5A Liquid Effluent Retention Facility Final Ground Water Monitoring Plan,
33 PNNL-11620, See Amendment III.4.B.c.

34 Appendix 7A Building Emergency Plan for the Liquid Effluent Retention Facility and
35 200 Area Effluent Treatment Facility, dated May 1998, as amended in
36 Class 2 Modification for Revision 5

1 Appendix 8A 200 Area Liquid Waste Processing Facilities Administrative Policies,
2 Dangerous Waste Training Plan, dated May 1998, as amended in Class 2
3 Modification for Revision 5

4 III.4.B. AMENDMENTS TO THE APPROVED PERMIT APPLICATION

5 III.4.B.a. Section 4.4.6; add the following paragraph, "All tank systems holding dangerous waste are
6 marked with labels or signs to identify the waste contained in the tanks. The labels or
7 signs are legible at a distance of at least fifty (50) feet and bear a legend that identifies the
8 waste in a manner which adequately warns employees, emergency response personnel, and
9 the public, of the major risk(s) associated with the waste being stored or treated in the tank
10 system(s)."

11 III.4.B.b. Appendix 3A, Waste Analysis Plan for the Liquid Effluent Retention Facility and 200
12 Area Effluent Treatment Facility.

13 III.4.B.b.1. The Permittees shall comply with all the requirements, subsections, figures, tables, and
14 appendices, included in the "Waste Analysis Plan for Liquid Effluent Retention Facility
15 and 200 Area Effluent Treatment Facility," except that the "Wastewater Profile Sheet
16 Form" is included as an example only. The actual Wastewater Profile Sheet format may
17 vary, but will contain the same substantive information as the example form.

18 III.4.B.b.2. Section 6.1 Dry Powder Waste

19 The following terms used in this Section, including powder, dry powder, waste powder,
20 and dry waste powder, are equivalent to the term "dry powder waste" as defined in lines
21 20 through 27 on page 6-1.

22 III.4.B.b.3. Section 6.3 Other Waste Generated at the 200 Area Effluent Treatment Facility

23 Insert the phrase "according to Washington State Regulatory Requirements" after the word
24 "designated" in line 44 on page 6-4.

25 III.4.B.c. Liquid Effluent Retention Facility Final Ground Water Monitoring Plan, PNNL-11620, is
26 an integral Part of this Permit and is to be added as Appendix 5A to the 200 Area Liquid
27 Waste Complex Permit Application.

28 III.4.B.d. Table 7-1, Sections 3.1, 4.0 (first paragraph), 8.2, 8.3, 8.4, 11.0, and 12.0 are added as
29 enforceable portions of Appendix 7A.

30 III.4.B.d.1. Portions of DOE/RL-94-02 that are not made enforceable by inclusion in the applicability
31 matrix for that document, are not made enforceable by reference in this document.

1 **CHAPTER 5**

2 **242-A Evaporator**

3 The 242-A Evaporator is a mixed waste treatment and storage unit consisting of a conventional forced-
4 circulation, vacuum evaporation system to concentrate mixed-waste solutions. This Chapter sets forth the
5 operating Conditions for this TSD unit.

6 **III.5.A. COMPLIANCE WITH APPROVED PERMIT APPLICATION**

7 The Permittees shall comply with all requirements set forth in Attachment 35, including the
8 Amendments specified in Condition III.5.B, if any exist. Enforceable portions of the
9 application are listed below; all subsections, figures, and tables included in these portions are
10 also enforceable, unless stated otherwise):

11 Part A, Form 3, Permit Application, Revision 7

12 Section 2.2 Topographic Map, (non-enforceable sections in Chapter 2 were modified
13 in Class 1 Modification) quarter ending March 31, 1998

14 Section 3.2 Waste Analysis

15 Chapter 4.0 Process Information

16 Chapter 6.0 Procedures to Prevent Hazards, dated May 1998, as amended in Class 2
17 Modification for Revision 5

18 Chapter 7.0 Contingency Plan, dated May 1998, as amended in Class 2 Modification
19 for Revision 5

20 Chapter 8.0 Personnel Training

21 Chapter 11.0 Closure and Financial Assurance, from Class 1 Modification for quarter
22 ending June 30, 1998

23 Chapter 12.0 Reporting and Recordkeeping

24 Chapter 13.0 Other Federal and State Laws

25 Appendix 2A Topographic Map

26 Appendix 3A Waste Analysis Plan for 242-A Evaporator, from Class 1 Modification
27 from quarter ending March 31, 1998

28 Appendix 4A Engineering Drawings

29 Appendix 4B The 242-A Evaporator/Crystallizer Tank System Integrity Assessment
30 Report

31 Appendix 7A Building Emergency Plan for 242-A Evaporator, dated May 1998, as
32 amended in Class 2 Modification for Revision 5

33 Appendix 8A 200 Area Liquid Waste Processing Facilities Administrative Policies,
34 Dangerous Waste Training Plan from Class 1 Modification for quarter
35 ending June 30, 1998

- 1
- 2 III.5.B. AMENDMENTS TO THE APPROVED PERMIT APPLICATION
- 3 III.5.B.a. Appendix 3A, Waste Analysis Plan (WAP) for 242-A Evaporator
- 4 III.5.B.a.1. Section 1.1 Purpose
- 5 The sentence beginning on line 23 of page 1-1 is modified to read as follows: “Sampling and
- 6 analysis identified in the DQO analysis related to meeting RCRA requirements are included
- 7 as an integral part of this WAP.”
- 8 III.5.B.a.2. Section 5.0, 242-A Evaporator Acceptance Criteria
- 9 Table 2, Page 5-4, Line 1, Change title to, “Candidate Feed Tank Limits for Vessel Vent
- 10 Organic Discharge”
- 11 III.5.B.a.3. Section 5.0, 242-A Evaporator Acceptance Criteria
- 12 Table 3, Page 5-5, Add footnote “f” to title of the table; and add footnote “f.” This table is
- 13 used to ensure process condensate generated from candidate feed tank treatment is within
- 14 LERF liner compatibility limits”
- 15 III.5.B.a.4. Section 6.1.2. Candidate Feed Tank Sampling QA/QC
- 16 Delete lines 5 through 6 on page 6-2 (“Trip blanks are analyzed for those constituents
- 17 detected in the field blanks.”) and replace with the following: “Trip blanks are analyzed as
- 18 independent samples for volatile organics analysis”
- 19 III.5.B.a.5. Section 6.1.2. Candidate Feed Tank Sampling QA/QC
- 20 Delete the word “discrete” from line 18 on page 6-2 and insert the word “unique”
- 21 III.5.B.a.6. Section 6.1.3. Process Condensate Sample Collection
- 22 Append to lines 32 through 33 on page 6-2 [“Samples of process condensate are collected in a
- 23 manner consistent with SW-846 procedures (EPA 1986).”] the following text: “...as
- 24 documented in sampling procedures which are maintained and implemented by unit
- 25 personnel”
- 26 III.5.B.a.7. Table 5. Analytes for Candidate Feed Tanks
- 27 On page 6-4, delete the word “method” and insert the word “technique” in the heading of
- 28 column 2
- 29 III.5.B.a.8. Section 7.3 Laboratory QA/QC
- 30 In line 40, delete “matrix spike –” and on line 43, replace “accuracy” with “precision” and
- 31 add a new sentence at the end of the paragraph, “Accuracy for DSC is evaluated by using the
- 32 laboratory control standard”
- 33 III.5.B.a.9. Section 7.3 Laboratory QA/QC
- 34 Add a new paragraph, “The QA/QC program for sampling and analysis related to this unit
- 35 must, at a minimum, comply with the applicable Hanford Site standard requirements and the
- 36 regulatory requirements. All analytical data shall be defensible and shall be traceable to
- 37 specific, related quality control samples and calibrations”
- 38 III.5.B.a.10. Table 7. Quality Assurance Objectives for Candidate Feed Tank Stream Analytes
- 39 Delete the word “Objectives” from the title of the table and insert the word “Requirements”

- 1 III.5.B.a.11. Table 7. Quality Assurance Objectives for Candidate Feed Tank Stream Analytes
2 In column 4, delete the words “matrix spike,” so the heading reads as follows: “Precision
3 (RPD between duplicates), %”
- 4 III.5.B.a.12. Table 7. Quality Assurance Objectives for Candidate Feed Tank Stream Analytes. Delete
5 Footnote 1 and replace with “Reserved”
- 6 III.5.B.a.13. Table 7. Quality Assurance Objectives for Candidate Feed Tank Stream Analytes. In line 6,
7 under “Accuracy” column, add “4” to table entry “N/A” and add to the end of footnote 4,
8 “Accuracy for DSC is evaluated by using the laboratory control standard”
- 9 III.5.B.a.14. Table 7-1, Sections 3.1, 4.0 (first paragraph), 8.2, 8.3, 8.4, 11.0, and 12.0 are added as
10 enforceable portions of Appendix 7A
- 11 III.5.B.a.15. Portions of DOE/RL-94-02 that are not made enforceable by inclusion in the applicability
12 matrix for that document, are not made enforceable by reference in this document
13

1 **CHAPTER 6**

2 **325 Hazardous Waste Treatment Units**

3 The 325 Hazardous Waste Treatment Units (HWTUs) consist of three (3) units within the 325 Building,
4 i.e., the Shielded Analytical Laboratory, the Hazardous Waste Treatment Unit, and the Collection/Loadout
5 Station Tank. The units store and treat a variety of dangerous wastes related to research and operations.
6 This chapter sets forth the operating Conditions for this TSD unit.

7 **III.6.A. COMPLIANCE WITH APPROVED PERMIT APPLICATION**

8 The Permittees shall comply with all requirements set forth in Attachment 36, including the
9 Amendments specified in Condition III.6.B. Enforceable portions of the application are listed
10 below. All subsections, figures, and tables included in these portions are also enforceable,
11 unless stated otherwise:

12 Part A, Form 3, Permit Application, Revision 4, June 1997

13 Chapter 2.2 Topographic Map from Class 1 Modification for quarter ending June 30,
14 1998

15 Chapter 3.0 Waste Characteristics

16 Chapter 4.0 Process Information from Class 1 Modification for quarter ending
17 December 31, 1998

18 Chapter 6.0 Procedures to Prevent Hazards from Class 1 Modification for quarter
19 ending December 31, 1998

20 Chapter 7.0 Contingency Plan, dated June 1, 1998, as amended in Class 2
21 Modification for Revision 5

22 Chapter 8.0 Personnel Training

23 Chapter 11.0 Closure and Financial Assurance

24 Chapter 12.0 Reporting and Recordkeeping

25 Chapter 13.0 Other Relevant Laws

26 Appendix 3A 325 HWTUs Waste Analysis Plan from Class 1 Modification for quarter
27 ending December 31, 1998

28 Appendix 4A Engineering Drawings

29 Appendix 7A Building Emergency Plan for the 325 HWTUs, dated June 1, 1998, as
30 amended in Class 2 Modification for Revision 5

31 Appendix 8A Training from Class 1 Modification for quarter ending December 31, 1998

32 **III.6.B. AMENDMENTS TO THE APPROVED PERMIT APPLICATION**

33 III.6.B.a. Only treatment specifically identified in the enforceable portions of the application and these
34 Permit Conditions may be performed at this TSD unit.

35 III.6.B.b. Twenty (20) months after inclusion in the Permit, this Chapter shall be modified to reflect
36 changes to waste streams shipped into, and out from, this unit, TSD unit operations, and the
37 addition of a new storage tank.

- 1 III.6.B.c. For all shipments of dangerous waste to or from the 325 HWTUs, the Permittees shall comply
2 with the applicable information in Conditions II.Q.1.h. and II.Q.2. of the Permit. For
3 clarification, all dangerous waste must be transported in accordance with the unit specific
4 provisions as outlined in the PNNL Operating Procedure for the 325 Building, in effect at the
5 date of the transfer. With exception to, and in addition to, the packaging and transporting
6 operations, shall be as follows:
- 7 The acceptance of all dangerous waste received at the 325 TSD Units will be dependent upon
8 their packaging. Liquid waste containers accepted from other buildings to the 325 HWTUs
9 shall have secondary containment with absorbent materials packed around the contents .
- 10 III.6.B.d. The Permittee must conduct integrity assessments over the life of the two (2) tank systems in
11 this TSD unit, to ensure that the tanks retain structural integrity per WAC 173-303-640.
12 Records must be maintained in the Operating Record for this TSD unit. Within thirty (30)
13 days of completion of each assessment, data relating to each tank system shall be made
14 available, upon request, to Ecology for review.
- 15 III.6.B.e. Within three (3) months of final installation of the new tank, the Permittee shall submit to
16 Ecology a written integrity assessment, which has been reviewed and certified by an
17 independent, qualified, registered professional engineer, in accordance with WAC 173-303-
18 810 (13)(a).
- 19 III.6.B.f. The TSD unit shall comply with all applicable Subpart AA and BB requirements of the Air
20 Emission Standards.
- 21 III.6.B.g. In response to the request in Chapter 11.0, Section 11.7, of Attachment 37, the Permittees are
22 granted two (2) years to close the TSD unit (2-28-2000). This time period is necessitated by
23 the high levels of radioactivity in the materials that are present, particularly in the six (6)
24 interconnected hot cells. Removal of waste inventory from the TSD unit is an activity of
25 closure.
- 26 III.6.B.h. All process knowledge and analytical data that are used for waste characterization, LDR
27 determination, and/or treatment activities at this TSD unit shall be documented and placed in
28 the Operating Record.
- 29 III.6.B.i. Shipments of waste shall not be accepted from any on-site generator without information
30 required by the 325 HWTUs WAP, accompanying the first shipment of any waste stream.
31 The TSD unit staff shall obtain, from the on-site generator, the information necessary to
32 determine the waste code, treatability group (i.e., wastewater versus non-wastewater),
33 subcategory, and identification of underlying hazardous constituents for certain characteristic
34 waste. A member of the TSD unit staff may sign the LDR certification as a representative of
35 the generator.
- 36 III.6.B.j. Shipments of waste shall not be accepted from any off-site generator without LDR
37 certification, if applicable, accompanying each shipment. For waste received from off-site
38 generators, the TSD unit shall receive the information pursuant to 40 CFR 268 regarding LDR
39 wastes. The generator must sign the LDR certification.
- 40 III.6.B.k. The QA/QC control program for sampling and analysis related to this TSD unit must, at a
41 minimum, comply with the applicable Hanford Site standard requirements and regulatory
42 requirements. All analytical data shall be defensible and shall be traceable to specific, related
43 quality control samples and calibrations.

- 1
- 2 III.6.B.l. By April 28, 1998, the Permittees shall submit the following for review and approval by
3 Ecology: for each parameter, the respective accuracy, precision, and quantitation limit (or
4 minimum detectable activity) necessary to meet the regulatory or decision limit. These data
5 quality requirements shall be added to the WAP and become enforceable Conditions of the
6 Permit. For determining the toxicity characteristics, SW-846 Method 1311 should be followed
7 wherever possible. The Permittee may use the total metals test and assumption of complete
8 extractability as described in Method 1311. A reduced sample size may also be utilized for As
9 Low As Reasonably Achievable (ALARA) purposes as recommended by the "*Joint NRC/EPA*
10 *Guidance on Testing Requirements of Mixed Radioactive and Hazardous Waste*"
11 (62 FR 62079).
- 12 III.6.B.m. For a given parameter, analytical methods are selected and may be modified as long as the
13 applicable precision, accuracy, and quantitation limit (or minimum detectable activity)
14 necessary to meet the regulatory or decision limit can be met or improved. (Note: the
15 Permittee submission described in Condition III.6.B.l. will define these data quality
16 requirements for this TSD unit.)
- 17 III.6.B.n. Chapter 2.0, Page 2-5, line 41. Change Figure 2-3b, to read "Figure 2.3b."
- 18 III.6.B.o. Appendix 7A, Sections 3.2, 4.0, 5.0, and 6.0 are added as enforceable Sections.
- 19 III.6.B.p. First Comment Package requested this Condition be deleted
- 20 III.6.B.q. Chapter 6, at the end of the paragraph, add "by Ecology and shall follow WAC 173-303-360,
21 where applicable"
- 22 III.6.B.r. Portions of DOE/RL-94-02 that are not made enforceable by inclusion in the applicability
23 matrix for that document, are not made enforceable by reference in this document.
24

PART IV - CORRECTIVE ACTIONS FOR PAST PRACTICES

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The HSWA Permit is issued by the EPA in conjunction with this Permit. Upon delegation of the Corrective Action requirements of the HSWA by the EPA to Ecology, the Permit shall be modified to incorporate the specific requirements of the HSWA Permit into this Permit. This Modification shall be considered a Class 3 Modification in accordance with Condition I.C.3. Until this Modification is complete, compliance with the terms of the referenced provisions, shall be deemed as compliance with WAC 173-303-646.

CHAPTER 2

**300 Area Solvent Evaporator
(Clean Closed, July 31, 1995)**

- 1
- 2
- 3
- 4 The 300 Area Solvent Evaporator (300 ASE) unit was operated as an evaporation treatment unit for
5 dangerous wastes. This Chapter sets forth the closure requirements for this TSD unit.
- 6 This unit has been Clean Closed on July 31, 1995, in accordance with the approved Closure Plan contained
7 in Attachment 16 of this Permit.

CHAPTER 3

**2727-S Nonradioactive Dangerous Waste Storage Facility
(Clean Closed, July 31, 1995)**

- 1
- 2
- 3
- 4 The 2727-S NRDWSF unit was operated as a storage unit for dangerous wastes. This Chapter sets forth
- 5 the closure requirements for this TSD unit.
- 6 This unit has been Clean Closed on July 31, 1995, in accordance with the approved Closure Plan contained
- 7 in Attachment 17 of this Permit.

1 **CHAPTER 4**

2 **Simulated High Level Waste Slurry Treatment and Storage Unit**
3 **(Clean Closed, October 23, 1995)**

4 The Simulated High Level Waste Slurry (SHLWS) unit was operated as a TSD unit for simulated slurry as
5 a test operation in connection with the grout project. This Chapter sets forth the closure requirements for
6 this TSD unit.

7 This unit has been Clean Closed on October 23, 1995, in accordance with the approved Closure Plan
8 contained in Attachment 19 of this Permit.

CHAPTER 5

**218-E-8 Borrow Pit Demolition Site
(Clean Closed, November 28, 1995)**

- 1
- 2
- 3
- 4 The 218-E-8 Borrow Pit Demolition Site (218 BPDS) unit was operated as an open burning/open
5 detonation unit for dangerous wastes. This Chapter sets forth the closure requirements for this TSD unit.
- 6 This unit has been Clean Closed on November 28, 1995, in accordance with the approved Closure Plan
7 contained in Attachment 20 of this Permit.

CHAPTER 6

**200 West Area Ash Pit Demolition Site
(Clean Closed, November 28, 1995)**

- 1
- 2
- 3
- 4 The 200 West Area Ash Pit Demolition Site (200 APDS) unit was operated as an open burning/open
5 detonation unit for dangerous wastes. This Chapter sets forth the closure requirements for this TSD unit.
- 6 This unit has been Clean Closed on November 28, 1995, in accordance with the approved Closure Plan
7 contained in Attachment 21 of this Permit.

CHAPTER 7

2101-M Pond

(Clean Closed, November 28, 1995)

- 1
- 2
- 3
- 4 The 2101-M Pond unit was operated as a disposal unit for potentially dangerous waste. This chapter sets
5 forth closure requirements for this TSD unit.
- 6 This unit has been Clean Closed on November 28, 1995, in accordance with the approved Closure Plan
7 contained in Attachment 22 of this Permit.

1 **CHAPTER 9**

2 **Hanford Patrol Academy Demolition Site**
3 **(Clean Closed, November 28, 1995)**

4 The Hanford Patrol Academy Demolition Site (HPADS) unit was operated as an open burning/open
5 detonation unit for dangerous waste. This Chapter sets forth the closure requirements for this TSD unit.
6 This unit has been Clean Closed on November 28, 1995, in accordance with the approved Closure Plan
7 contained in Attachment 24 of this Permit.

CHAPTER 10

**105-DR Large Sodium Fire Facility
(Partial Closure Plan Completed, October 1, 1996)**

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The Large Sodium Fire Facility (LSFF) was a research laboratory used to conduct experiments for studying the behavior of alkali metals. This facility was also used for the treatment of alkali metal dangerous wastes.

This unit completed the closure plan on October 1, 1996, in accordance with the approved Closure Plan contained in Attachment 25 of this Permit

CHAPTER 12

**4843 Alkali Metal Storage Facility Closure Plan
(Clean Closed, April 14, 1997)**

- 1
- 2
- 3
- 4 The 4843 Alkali Metal Storage Facility (4843 AMSF) is an inactive storage facility which is currently
5 undergoing permanent closure activities. This TSD unit was operated as a storage unit for dangerous
6 waste and alkali metals.
- 7 This unit has been clean closed on April 14, 1997, in accordance with the approved closure plan contained
8 in attachment 29 of this Permit.

1
2 **CHAPTER 13**

3 **3718-F Alkali Metal Treatment and Storage Facility Closure Plan**
4 **(Clean Closed, August 4, 1998)**

5 This unit has been Clean Closed on August 4, 1998, in accordance with the approved Closure Plan
6 contained in Attachment 30 of this Permit. The 3718-F Alkali Metal Treatment and Storage Facility was
7 operated to treat and store alkali metal waste from the Fast Flux Test Facility, and from various
8 laboratories that used alkali metals for experiments. Contaminated equipment was treated using water,
9 methanol, isopropyl alcohol, or 2-butoxy ethanol. Bulk waste was treated by burning to eliminate the
10 ignitability and reactive characteristics. After the burn treatment, the waste was neutralized with acid to a
11 pH between 2 and 12.5.

12 **V.13.A COMPLIANCE WITH THE APPROVED CLOSURE PLAN**

13 The Permittees shall comply with all requirements set forth in Attachment 30, including the
14 Amendments specified in Condition V.13.B. Enforceable portions of the Plan are listed
15 below; all subsections, figures, and tables included in these portions are also enforceable,
16 unless stated otherwise:

17 The operation of this facility resulted in the release of material, which may classify as
18 dangerous waste and/or dangerous constituents, to the soil surrounding the building and
19 concrete pad. A closure plan must address the full extent of operation and releases to the
20 environment. Therefore, Ecology requires the owner/operator to conduct soil sampling to
21 determine the extent of the releases. The 3718-F Alkali Metal Treatment and Storage Facility
22 cannot be released from interim status until it can be demonstrated that the unit has been
23 closed in accordance with closure requirements of WAC 173-303, or corrective action has
24 been completed.

25 If pre-existing contamination remains at the unit in concentrations above appropriate MTCA
26 cleanup levels, the unit is subject to additional remediation under RCRA corrective action,
27 MTCA, or CERCLA, as appropriate.

28 Part A, Form 3, Permit Application, Revision 4, October 1996

29 Section 1.2 Closure Strategy
30 Chapter 2.0 Facility Description and Location Information
31 Chapter 5.0 Ground Water Monitoring
32 Chapter 6.0 Closure Performance Standards
33 Chapter 7.0 Closure Activities
34 Chapter 8.0 Post-Closure Plan

35 **V.13.B. AMENDMENTS TO THE APPROVED CLOSURE PLAN**

36 **V.13.B.a.** If closure activities have not begun and/or will not be conducted in accordance with the Plan,
37 including these unit-specific Conditions to the Plan, a written notification shall be submitted
38 to Ecology within thirty (30) days after the Plan is approved.

- 1
- 2 V.13.B.b. Ecology shall be provided, for review and approval, a soil sampling and analysis plan at least
3 thirty (30) days prior to initiating actual sampling. Such a plan shall include a schedule for
4 conducting sampling events. The analytical results of the sampling event will be used to
5 determine if corrective action will be required to close the 3718-F Alkali Metal Treatment and
6 Storage Facility.
- 7 V.13.B.c. Ecology shall be provided a diagram of the 3718-F Alkali Metal Treatment and Storage
8 Facility unit boundary to be closed, addressing the maximum extent of operation. The
9 diagram should incorporate the fenced area surrounding the building, indicating which areas
10 intentionally, or unintentionally, received waste. This diagram is to be submitted with the
11 SAP required by Condition V.13.B.b.
- 12 V.13.B.d. The soil samples shall be analyzed for all dangerous constituents documented to have been
13 potentially spilled or released at the 3718-F Alkali Metal Treatment and Storage Facility
14 during its operating life. These analyses shall be performed in accordance with WAC 173-
15 303-110, including the QA/QC requirements delineated in SW-846.
- 16 V.13.B.e. The results of all sampling shall be submitted to Ecology. These submittals shall include the
17 raw analytical data, a summary of analytical results, a data validation package, and a narrative
18 summary with conclusions.
- 19 V.13.B.f. The Permittees and the independent, registered, professional engineer shall prepare and
20 submit the certification of closure to Ecology by registered mail within sixty (60) days of
21 closure.
- 22 V.13.B.g. The Permittees shall continue to address the 3718-F Alkali Metal Treatment and Storage
23 Facility as a dangerous waste management unit until receipt of Ecology's written notification
24 that the closure certification is accepted as clean closed.
- 25 V.13.B.h. The Permittees shall complete the 3718-F Alkali Metal Treatment and Storage Facility
26 closure activities within one hundred eighty (180) days after the effective date of this Permit.
27 This schedule may be extended at Ecology's discretion based on the results of sampling
28 conducted at the unit.
- 29 V.13.B.i. Any solid waste remaining at the unit or generated during sampling and/or decontamination
30 activities shall be designated and managed accordingly. Ecology shall be informed in writing
31 of the final disposition of the waste.
- 32 V.13.B.j. A written notification shall be submitted to Ecology regarding the final disposition of
33 equipment associated with, or subject to, decontamination, designation, removal, disposal,
34 recycling or reuse at the 3718-F Alkali Metal Treatment and Storage Facility.
- 35 V.13.B.k. The Permittees shall notify Ecology, in writing, if at any time it is determined the clean
36 closure levels specified in this Plan are exceeded.
- 37 V.13.B.l. Ecology will consider removal and decontamination complete when the concentrations of
38 dangerous waste, dangerous waste constituents, and dangerous waste residues, which
39 originated from the 3718-F Alkali Metal Treatment and Storage Facility, throughout the areas
40 affected by releases from this unit, do not exceed numeric cleanup levels for soils, ground
41 water, surface water, and air, determined by using residential exposure assumptions according
42 to the MTCA 173-340, Method A or B.

- 1 V.13.B.m. A Post-Closure Permit will be required if dangerous wastes constituents, residues, or
2 decomposition products, are left in place at concentrations above the numeric cleanup levels
3 determined by using residential exposure assumptions under MTCA Method A or B.
- 4 V.13.C CHANGES TO TEXT OF REVISION 2 OF THE CLOSURE PLAN (CHAPTER 13)
- 5 V.13.C.a. Page 6-2, line 8. Disregard first bullet. The bullet inaccurately states radioactive waste was
6 not managed at the unit. The 3718-F Alkali Metal Treatment and Storage Facility did manage
7 radioactive sodium according to *DOE-RL 1992a, 3718-F Alkali Metal Treatment and Storage*
8 *Facility Closure Plan, DOE-RL-91-35, Rev. 1*, U.S. Department of Energy, Richland Field
9 Office, Richland, Washington and the *300-FF-2 Operable Unit Technical Baseline Report,*
10 *BHI-00012, Rev. 00, Bechtel Hanford, Inc., Richland, Washington.*

1 **CHAPTER 14**

2 **303-K Storage Facility**

3 The 303-K Storage Facility (303-K) was used primarily for storage, and some treatment of dangerous
4 wastes produced during the fuel fabrication process. These wastes consist of beryllium/zircalloy-2 chips
5 which were concreted at the 304 Concretion Facility, and other process wastes.

6 V.14.A COMPLIANCE WITH THE APPROVED CLOSURE PLAN

7 The Permittees shall comply with all the requirements set forth in Attachment 32, including
8 the Amendments specified in Condition V.14.B. Enforceable portions of the Plan are listed
9 below; all subsections, figures, and tables included in these portions are also enforceable,
10 unless stated otherwise:

11 Part A, Form 3, Permit Application, Revision 5, October 1996

12 Section 2.1 Description of the 303-K Storage Facility

13 Section 2.2 Security

14 Chapter 4.0 Waste Characteristics

15 Chapter 6.0 Closure Strategy and Performance Standards

16 Chapter 7.0 Closure Activities

17 Chapter 8.0 Post-Closure

18 Appendix B Random Sampling Locations

19 Appendix E Personnel Training

20 Appendix F Quality Assurance Project Plan for Sampling and Analysis for the 304
21 Concretion Facility Closure Activities

22 V.14.B AMENDMENTS TO THE APPROVED CLOSURE PLAN

23 V.14.B.a. If closure activities have not begun and/or will not be conducted in accordance with the Plan,
24 including these unit-specific Conditions to the Plan, a written notification shall be submitted
25 to Ecology within thirty (30) days after the Plan is approved.

26 V.14.B.b. The results of all sampling required by the Plan shall be provided to Ecology. This submittal
27 shall include raw analytical data, a summary of analytical results, a data validation package,
28 and a narrative summary of conclusions.

29 V.14.B.c. Ecology shall be provided, for review and approval, a SAP and date of sampling for any
30 sampling event not addressed in the Plan, which provides data used to support the 303-K
31 cleanup activities, at least thirty (30) days prior to initiating actual sampling activities. The
32 results of this sampling shall be submitted to Ecology. These submittals shall include the raw
33 analytical data, a summary of analytical results, a data validation package, and a narrative
34 summary of conclusions.

35 V.14.B.d. The Permittees shall notify Ecology, in writing, if action levels cited in Section 6.1 of the
36 Plan are exceeded. The notification shall include a request for Ecology's approval of
37 alternative action levels, or identify interim measures to be taken in the 303-K until closure
38 activities are performed in conjunction with the 300-FF-3 Operable Unit. The interim
39 measures must be approved by Ecology.

- 1 V.14.B.e. The Permittees' and the independent, registered, professional engineer's certifications of
2 closure shall be prepared and submitted to Ecology by registered mail within sixty (60) days
3 of closure as described in Section 7.8 of the Plan. The Permittees shall continue to address
4 the 303-K as a dangerous waste management unit until receipt of Ecology's written
5 notification that the 303-K is accepted as clean closed.
- 6 V.14.B.f. Due to lack of federal funding in 1998, the allowed time for closure of 303-K is hereby
7 extended in accordance with WAC 173-303-610(4)(b)(i) and 173-303-815(3). The Permittees
8 shall submit a certification of closure for 303-K no later than September 30, 2001. In
9 addition, the Permittees shall submit to Ecology at least two (2) reports of progress toward
10 completion of closure (i.e., budgeting for building demolition, obtaining sufficient funding,
11 scheduling the physical work). The first report shall be submitted no later than September 30,
12 1999, and the second shall be submitted no later than September 30, 2000.
- 13 V.14.B.g. Compliance with the approved Sampling and Analysis Plan.
14 The Permittees shall comply with all the requirements set forth in the "303-K Storage Facility
15 Sampling and Analysis Plan" (as found in Attachment 38) and the "Errata Sheet for the 303-K
16 Storage Facility Sampling and Analysis Plan" (as found in Attachment 39) including the
17 Amendments specified below. All subsections, figures, and tables included in the Sampling
18 and Analysis Plan also are enforceable, unless otherwise stated.
- 19 V. 14.B.g.1. Section 5.1 Cleanup Performance Standards for Soils.
20 Insert the following after line 25 on page 5: "Using the Ecology publication, Model Toxics
21 Control Act (MTCA) Cleanup Levels and Risk Calculations (CLARC II) Update, February
22 1996 (Publication #94-145, as updated January 1996), cleanup levels shall be identified for all
23 constituents of concern. In addition, when a MTCA Method B value does not exist for a
24 constituent, the cleanup level shall be obtained from the appropriate Method A table in WAC
25 173-340."
26 Delete Table 1 on page 6.
- 27 V.14.B.g.2. Section 7.4 Support for Ecology during Sampling.
28 Delete lines 29 through 32 on page 16 ("Split samples of concrete and soil may be collected,
29 if requested, for Ecology. If split samples for Ecology are collected as part of this sampling
30 effort, then the...") and replace with the following: "Split samples of concrete and soil will be
31 collected for Ecology from each sampling location. The..."
- 32 V.14.B.g.3. Field analytical quality control will include analytical duplicate(s) and verification of the
33 method detection limit. Each field screening analytical duplicate sample will be collected
34 from the same volume of sample material as the original field screening analytical sample.
35 The frequency for these duplicates will be one (1) per twenty (20) samples, or one (1) per day
36 of analysis, whichever is more stringent. The procedure used for the verification of the
37 method detection limit is subject to approval by Ecology.
- 38 V.14.B.g.4. The laboratory quality control will be performed as described in the respective method, but
39 will include the following: The frequency for analytical quality control will be one (1) in
40 twenty (20) samples, or one (1) per analytical batch, whichever is more stringent, for
41 duplicate and spike (or matrix spike) samples. Samples from this project must be chosen for
42 the duplicate and spike (or matrix spike) samples. At least one (1) method blank, and one (1)
43 quality control check sample, will be performed for each analytical batch.

- 1 V.14.B.g.5. Samples shall be placed upon ice immediately, or refrigerated to 4 ± 2 degrees Celsius after
2 sampling, and held at that temperature prior to and during shipping to the analytical
3 laboratory.
- 4 V.14.B.g.6. Loss of any sample due to any cause may require resampling and/or reanalysis, at the
5 discretion of Ecology.
- 6 V.14.B.g.7 The results of all analyses required by the SAP as revised by these Conditions shall be
7 provided to Ecology as stated in V.14.B.c. In addition to the items listed, these submittals
8 shall include calibration and quality control data. A data evaluation report shall be submitted
9 to Ecology comparing the analytical results to the cleanup levels for the 303-K, derived as
10 described in Condition V.14.B.g.1. For data to be useable for this comparison, the method
11 quantification limit for the constituent must be equal to, or less than, the cleanup level, or the
12 method detection limit must be at least ten (10) times below the cleanup level, and the data
13 package must be complete.
- 14 V.14.B.h. If any analytical result, except for arsenic and beryllium, for any sample location specified in
15 the SAP exceeds the MTCA Method B cleanup level, then characterization of the lateral and
16 vertical extent of the contamination shall be required and Ecology shall pursue corrective
17 action for this TSD unit. If arsenic or beryllium exceed the established Hanford Sitewide
18 Background values, then characterization of the lateral and vertical extent of the
19 contamination shall be required and Ecology shall pursue corrective action for this TSD unit.

1 **CHAPTER 15**

2 **100 D Ponds**

3 The 100 D Ponds is an inactive TSD unit that is currently undergoing permanent closure activities. This
4 TSD unit was operated as a liquid effluent disposal site for dangerous wastes. This Chapter sets forth the
5 closure requirements for this TSD unit.
6

7 V.15.A. COMPLIANCE WITH APPROVED CLOSURE PLAN

8 The Permittees shall comply with all requirements set forth in the 100 D Ponds Closure Plan
9 (Plan), found in Attachment 43, including the Amendments specified in Condition V.15.B.
10 Enforceable portions of the Plan are listed below; all subsections, figures, and tables included
11 in these portions are also enforceable, unless stated otherwise:
12

13 Part A, Form 3, Permit Application, Revision 4, June 30, 1994

14
15 Section 2.3 Security Information
16 Section 5.0 Ground Water Monitoring
17 Section 6.0 Closure Strategy and Performance Standards
18 Section 7.0 Closure Activities
19

20 V.15.B. AMENDMENTS TO THE APPROVED CLOSURE PLAN

21 V.15.B.a. (Reserved)

1 **CHAPTER 16**

2 **1325-N Liquid Waste Disposal Facility**

3
4 The 1325-N Liquid Waste Disposal Facility is an inactive TSD unit that is currently undergoing modified
5 closure activities. This TSD unit was operated as a liquid waste disposal facility for dangerous wastes.
6 This Chapter sets forth the modified closure requirements for this TSD unit.

7
8 **V.16.A. COMPLIANCE WITH APPROVED MODIFIED CLOSURE PLAN**

9 The Permittees shall comply with all requirements set forth in the 1325-N Closure Plan found
10 in Attachment 44 (DOE/RL-96-39, Rev. 0, Appendix A), including the Amendments specified
11 in Condition V.16.B. Enforceable portions of the Plan are listed below; all subsections,
12 figures, and tables included in these portions are also enforceable, unless stated otherwise:

13
14 Part A, Form 3, Permit Application, Revision 7, February 25, 1997

15		
16	Section A1.0	Introduction
17	Section A2.1	General Description of Unit
18	Section A3.0	Ground Water Monitoring
19	Section A4.0	Closure
20	Section A5.0	Post-closure Plan
21		

22 **V.16.B. AMENDMENTS TO THE APPROVED MODIFIED CLOSURE PLAN**

23 **V.16.B.a. (Reserved)**

1 **CHAPTER 17**

2 **1301-N Liquid Waste Disposal Facility**

3
4 The 1301-N Liquid Waste Disposal Facility is an inactive TSD unit that is currently undergoing modified
5 closure activities. This TSD unit was operated as a liquid waste disposal facility for dangerous wastes.
6 This Chapter sets forth the modified closure requirements for this TSD unit.

7 **V.17.A. COMPLIANCE WITH APPROVED MODIFIED CLOSURE PLAN**

8 The Permittees shall comply with all requirements set forth in the 1301-N Closure Plan found
9 in Attachment 44 (DOE/RL-96-39, Rev. 0, Appendix A), including the Amendments specified
10 in Condition V.17.A. Enforceable portions of the Plan are listed below; all subsections,
11 figures, and tables included in these portions are also enforceable, unless stated otherwise:

12 Part A, Form 3, Permit Application, Revision 7, February 29, 1997

13

14	Section A1.0	Introduction
15	Section A2.1	General Description of Unit
16	Section A3.0	Ground Water Monitoring
17	Section A4.0	Closure
18	Section A5.0	Post-Closure Plan

19

20 **V.17.B. AMENDMENTS TO THE APPROVED MODIFIED CLOSURE PLAN**

21 **V.17.B.a. (Reserved)**

1 **CHAPTER 19**

2 **1324-NA Percolation Pond**

3
4 The 1324-NA Percolation Pond is an inactive TSD unit that is currently undergoing modified closure
5 activities. This TSD unit was operated as a surface impoundment unit for dangerous wastes. This Chapter
6 sets forth the modified closure requirements for this TSD unit.

7 V.19.A. COMPLIANCE WITH APPROVED MODIFIED CLOSURE PLAN

8 The Permittees shall comply with all requirements set forth in the 1324-NA Closure Plan
9 found in Attachment 45 (DOE/RL-96-39, Rev. 0, Appendix B), including the Amendments
10 specified in Condition V.19.B. Enforceable portions of the Plan are listed below; all
11 subsections, figures, and tables included in these portions are also enforceable, unless stated
12 otherwise:

13 Part A, Form 3, Permit Application, Revision 3, June 30, 1994

14

15	Section B1.0	Introduction
16	Section B2.1	General Description of Unit
17	Section B3.0	Ground Water Monitoring
18	Section B4.0	Closure
19	Section B5.0	Post-Closure Plan

20
21 V.19.B. AMENDMENTS TO THE APPROVED MODIFIED CLOSURE PLAN

22 V.19.B.a. (Reserved)

1 Appendix 7D Summary of Pre- and Post- Expedited Response Action (ERA) Sampling
2 Data

3 VI.1.B. AMENDMENTS TO THE APPROVED MODIFIED CLOSURE PLAN

4 VI.1.B.a. Page 1-1, line 34 will reference section II.K.3. of the Hanford Facility Wide Permit, which
5 covers modified closures.

6 VI.1.B.b. Pursuant to Condition II.K.7. of the Hanford Facility Wide Permit, the 300 Area Process
7 Trenches (APT) closure shall be a Modified Closure in coordination with the Record of
8 Decision (ROD) for 300-FF-1 and 300-FF-5. Sections of CERCLA documents (examples
9 may include, but are not limited to, Remedial Design/Remedial Action CERCLA work plan,
10 the Operation and Monitoring Work Plan, etc.), which satisfy requirements and Conditions of
11 this Modified Closure Plan, will be reviewed and approved by Ecology.

12 VI.1.B.c. The Sampling and Analysis Plan, Appendix 7A (Verification Sampling), will be submitted to
13 Ecology for approval. This will occur prior to all remedial actions within the 300 APT.

14 VI.1.B.d. Page 1-7, lines 9-13. This portion of the paragraph will be replaced by the following:
15 "Disposal of TSD unit soil into the Environmental Restoration Disposal Facility (ERDF) (or a
16 comparable RCRA Subtitle C Landfill), within the boundaries of the Hanford Facility is
17 allowed through an approved, contained in demonstration, based on MTCA B cleanup levels
18 (WAC-173-340) for the contamination carrying the F and U codes, and with TCLP data for
19 the characteristic waste."

20 VI.1.B.e. Page 6-1, lines 8-10. This portion of the paragraph will be replaced by the following: "Based
21 on data in addition to ERA data (DOE/RL-92-32), remediation will occur to meet all
22 Applicable Relevant and Appropriate Requirements (ARARs) within the trenches. This will
23 include removal of the spoils pile for chemical contamination above MTCA C Industrial
24 cleanup values. It has been concluded that when uranium is removed to the CERCLA
25 cleanup standard of 350 pCi/g, the Chemical Contaminants of Concern (COCs) will likely be
26 removed to below the cleanup standard, as well. Verification samples will be collected for
27 both chemicals and radioisotopes, as directed in the remedial action sampling and analysis
28 plan, to determine whether performance standards for the modified closure have been met."

29 VI.1.B.f. Page 6-1, line 11. The sentence here is deleted and replaced with the following: "When TSD
30 soils are remediated, the cleanup levels achieved for RCRA constituents could qualify the
31 unit for clean closure of the soil."

32 VI.1.B.g. Page 6-1, lines 22-27. This portion of the paragraph will be removed.

33 VI.1.B.h. Page 6-2, line 23-27. These sentences will be deleted and replaced with the following: "Final
34 closure specifications are known and will be coordinated with the CERCLA cleanup
35 activities."

36 VI.1.B.i. As stipulated through the RCRA Final Status Compliance Monitoring Plan (i.e., WHC-SD-
37 EN-AP-185) Appendix IX, sampling shall not be required unless post-closure monitoring
38 results indicate a need to do so.

39 VI.1.B.j. Page 6-3, line 12-24. Presenting the option for Modified Closure is redundant. This
40 paragraph will be deleted.

41 VI.1.B.k. Page 6-4, lines 26-33. Presenting the Landfill Closure Option is not supported by sufficient
42 technical data. This paragraph will be deleted.

- 1 VI.1.B.l. Page 6-6, lines 14-15. This paragraph will be replaced with the following: "RCRA closure
2 verification will occur as part of the spoils pile removal, and will be in coordination with
3 CERCLA remedial activities."
- 4 VI.1.B.m. Page 6-6, lines 17-19. This paragraph will be replaced with the following: "The analytical
5 results of TSD screening/verification sampling will be reviewed by Ecology. This review
6 will be allowed at any point during the process (i.e., raw data, as well as, completed data
7 summaries)."
- 8 VI.1.B.n. Page 7-1, lines 5-10. This portion of the paragraph will be replaced by the following: "These
9 closure activities will reflect the closure specifications stipulated in the Modified
10 Closure/Post-Closure Plan, Hanford Facility Wide Permit (#WA7890008967), and the
11 CERCLA ROD for 300-FF-1. Ground water remediation will be addressed as part of the
12 remedial actions for 3-FF-5."
- 13 VI.1.B.o. Page 7-6, lines 20-22. These sentences will be replaced by the following: "Sampling will be
14 appropriate to the applicable remedial alternatives under consideration for remediation of
15 both CERCLA and RCRA Constituents."
- 16 VI.1.B.p. Page 8-3, line 6. Security Control Devices (SCD) will be developed pursuant to Condition
17 II.K.3.a. of the Permit. Implementation of SCD will occur through Ecology approval of a
18 monitoring, inspection, and maintenance Plan.
- 19 VI.1.B.q. Page 8-3, line 20. Well condition will be assessed pursuant to Condition II.F. of the Permit.
- 20 VI.1.B.r. Page 8-5, Section 8.5. This section will reference Section II.C. of the Permit for additional
21 training requirements.
- 22 VI.1.B.s. Pursuant to CERCLA, removal of the spoils pile within the trenches will begin fifteen (15)
23 months after the signature of the 300-FF-1/300-FF-5 ROD.

1 **CHAPTER 2**

2 **183-H Solar Evaporation Basins**

3 The 183-H Solar Evaporation Basins (Basins) comprise an inactive TSD unit that is currently undergoing
4 closure activities. This TSD unit was operated as an evaporation treatment unit for dangerous wastes.
5 This Chapter sets forth the closure requirements for this TSD unit. The following enforceable portions of
6 the *183-H Solar Evaporation Basins Post-Closure Plan, Rev. 0 (Plan)*, found in Attachment 37 supersede
7 the *183-H Solar Evaporation Basins Closure Plan/Post-Closure Plan*, found in Attachment 11 which was
8 previously listed in Part V, Chapter 1.

9 VI. 2. A. COMPLIANCE WITH APPROVED MODIFIED CLOSURE PLAN

10 The requirements are set forth in Attachment 37. Enforceable portions of the Plan are listed
11 below; all subsections, figures, and tables included in these portions are also enforceable,
12 unless stated otherwise:

13 Part A, Form 3, Permit Application, Revision 4, June 1994

14 Attachment 37, 183-H Solar Evaporation Basins Post-Closure Plan, Rev. 0

- 15 Section 2.1 Modified Post-Closure Institutional Controls
- 16 Section 2.2 Modified Post-Closure Periodic Assessments
- 17 Section 3.0 Ground Water Monitoring During Post-Closure
- 18 Section 3.1 WAC 173-303-645(11)(d) Monitoring Requirements
- 19 Section 3.1.1 WAC 173-303-645(3) Ground Water Protection Standard
- 20 Section 3.1.2 WAC 173-303-645(8) General Ground Water Monitoring Requirements
- 21 Section 3.2 RCRA Corrective Action Ground Water Monitoring Schedule
- 22 Section 3.3 Ground Water Monitoring under CERCLA
- 23 Section 3.3.1 100-HR-3 Remedial Investigation Monitoring
- 24 Section 3.3.2 100-HR-3 Interim Remedial Measure Monitoring
- 25 Section 3.4 Inspection, Maintenance, and Replacement of Wells
- 26 Section 4.0 Corrective Action Plan
- 27 Section 4.1 Soil Column Corrective Action
- 28 Section 4.2 Ground water Corrective Action
- 29 Section 4.3 Remediation Expectations During the Interim Remedial Measure (IRM)
- 30 Section 5.0 Personnel Training During Post-Closure
- 31 Section 6.0 Security
- 32 Section 7.0 Closure Contact
- 33 Section 8.0 Certification of Post-Closure

34 VI.2.B. Amendments to the Approved Post-Closure Plan

35 VI.2.B.a The Permittee will review the modified closure option in five (5) years (February 28, 2003).
36 The purpose of the review will be to determine if this TSD can be clean closed.

- 1 VI.2B.b Ground Water Monitoring Plan for the 183-H Solar Evaporation Basins, PNNL-11573. The
- 2 Permittees shall comply with the above referenced document, which details the final status
- 3 Ground Water Monitoring Program for the 183-H Solar Evaporation Basins.