

0048641

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

Department of Ecology
Nuclear Waste Program
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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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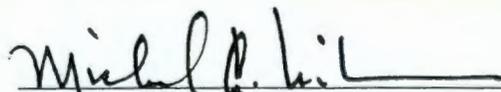
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This Permit, as modified on February 25, 1998, is effective as of February 28, 1998, and shall remain in effect through September 27, 2004, unless revoked and reissued under WAC 173-303-830(3), terminated under WAC 173-303-830(5), or continued in accordance with WAC 173-303-806(7).

ISSUED BY: **WASHINGTON STATE DEPARTMENT OF ECOLOGY**


Michael Wilson, Manager
Nuclear Waste Program
Department of Ecology

Date: 2/25/98

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LIST OF ATTACHMENTS

- 1
- 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., I.E.15. through I.E.20., and I.E.22. The Department 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
- 11 Attachment 3 Permit Applicability Matrix (As Revised on February 25, 1998)
- 12 Attachment 4 Hanford Facility Contingency Plan, Revision 2, July 1996 (superseded by
13 Appendix 7A of Attachment 33)
- 14 Attachment 5 Purgewater Management Plan, July 1990
- 15 Attachment 6 Hanford Well Remediation and Decommissioning Plan, Revision 0
- 16 Attachment 7 Policy on Remediation of Existing Wells and Acceptance Criteria for RCRA and
17 CERCLA, June 1990
- 18 Attachment 8 616 Nonradioactive Dangerous Waste Storage Facility Part A, Form 3, Revision
19 7, March 4, 1997, & Part B Permit Application, Revision 2, September 1991,
20 and Approved Modifications
- 21 Attachment 9 616 Nonradioactive Dangerous Waste Shipping Lists
- 22 Attachment 10 616 Nonradioactive Dangerous Waste Facility Description of Procedures
- 23 Attachment 11 183-H Solar Evaporation Basins Closure/Post-Closure Plan, Revision 3, June
24 1991 (Superseded by Attachment 37)
- 25 Attachment 12 Decommissioning Work Plan "Concrete Sampling - 183-H Solar Evaporation
26 Basins" (DWP-H-080-00001) 8-26-91, Revision A-3
- 27 Attachment 13 Decommissioning Work Plan "Core Drill Sampling - 183-H Solar Evaporation
28 Basins (Phase I)" (DWP-H-080-00005) 2-8-91, Revision A-1
- 29 Attachment 14 "183-H Solar Evaporation Basins Vadose Zone Sampling Plan" (WHC-SD-EN-
30 AP-056) 6-25-91, Revision 0
- 31 Attachment 15 Decommissioning Work Plan "Berm Removal for 183-H Solar Evaporation
32 Basins" (DWP-H-026-00008) 1-16-91, Revision A-0
- 33 Attachment 16 300 Area Solvent Evaporator Closure Plan, Revision 3B, September 1992
34 (Clean Closed, July 31, 1995)
- 35 Attachment 17 2727-S Nonradioactive Dangerous Waste Storage Facility Closure Plan,
36 Revision 3, January 1992 (Clean Closed, July 31, 1995)
- 37 Attachment 18 305-B Storage Facility Part A, Form 3, Revision 1, September 25, 1990 and Part
38 B Permit Application, Revision 2, October 1992, and Approved Modifications
- 39 Attachment 19 Simulated High-Level Waste Slurry TSD Closure Plan, Revision 6A, November
40 1994 (Clean Closed, October 23, 1995)
- 41 Attachment 20 218-E-8 Borrow Pit Demolition Site Closure Plan, Revision 1, October 1994
42 (Clean Closed, November 28, 1995)

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

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 treatment, storage, and disposal (TSD) units or which may be
8 associated with many TSD units (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 Agency's HSWA Permit. The HSWA
15 Permit contains those requirements that apply to the identification of Solid Waste Management Units
16 (SWMUs) at the Facility and conduct of investigations and remediations at such SWMUs. The HSWA
17 Permit 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 remediations, as necessary, in accordance with the requirements and schedules
23 identified in the HSWA Permit.

24 It is intended that, once the Department receives authorization from the Agency to implement the
25 Corrective Action provisions, these requirements will be incorporated into this Part through a Permit
26 modification. Until the Department receives authorization for the Corrective Action provisions of RCRA,
27 the Agency shall maintain 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 need
38 to meet post-closure standards. As set out in Section 5.3 of the Action Plan of the FFACO, certain TSD
39 units shall be permitted for post-closure care pursuant to the authorized State Dangerous Waste Program
40 (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.

DEFINITIONS

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

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

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

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

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

The following definitions apply throughout this Permit:

- a. The term "**Critical Systems**," as applied to determining whether a permit modification is required, means those specific portions of a TSD unit's structure or equipment whose failure could lead to the release of dangerous waste into the environment and/or systems which include processes which treat, transfer, store, or dispose of regulated wastes. A list identifying the critical systems of a specific TSD unit may be developed and included in Part III, V, and/or VI of this Permit. In developing a critical system list, or in the absence of a critical system list, WAC 173-303-830 modifications shall be considered.
- b. The term "**Contractor(s)**" means, unless specifically identified otherwise in this Permit or attachments, Fluor Daniel Hanford, Inc. (FDH), Pacific Northwest National Laboratory (PNNL), and Bechtel Hanford, Inc. (BHI).
- c. The term "**Dangerous Waste**" means those solid wastes designated under Chapter 173-303 WAC as dangerous or extremely hazardous waste. As used in the Permit, the word "dangerous waste" shall refer to the full universe of wastes regulated by Chapter 70.105 RCW and Chapter 173-303 WAC (including dangerous waste, hazardous waste, extremely hazardous waste, mixed waste, and acutely hazardous waste).
- d. The term "**Days**" means calendar days, unless specifically identified otherwise. Any submittal, notification, or recordkeeping requirement that would be due under the Conditions of this Permit on a Saturday, Sunday, or federal or state holiday shall be due on the following business day, unless specifically specified otherwise in the Permit.
- e. The term "**Department**" means the Washington State Department of Ecology (with the address as specified on page one (1) of this Permit).
- f. The term "**Director**" means the Director of the Washington State Department of Ecology or a designated representative. The Program Manager of the Nuclear Waste Program (with the address as specified on page one of this Permit) is a duly authorized and designated representative of the Director for purposes of this Permit.
- g. The term "**Facility**" means all contiguous land, structures, other appurtenances, and improvements on the land used for recycling, reusing, reclaiming, transferring, storing,

1 treating, or disposing of dangerous waste. The legal and physical description of the Facility is
2 set forth in Attachment 2 of this Permit.

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

ACRONYMS

1		
2	AGENCY	U.S. Environmental Protection Agency, Region X
3	APP	Used to Denote Appendix Page Numbers
4	BHI	Bechtel Hanford, Inc.
5	CERCLA	Comprehensive Environmental Response Compensation and Liability Act of
6		1980 (as Amended by the Superfund Reauthorization Act of 1986)
7	CFR	Code of Federal Regulations
8	CIP	Construction Inspection Plan
9	CLP	Contract Laboratory Program
10	Department	Washington State Department of Ecology
11	DOE-RL	U.S. Department of Energy, Richland Operations Office
12	EC	Emergency Coordinator
13	Ecology	Washington State Department of Ecology
14	ECN	Engineering Change Notice
15	EPA	U.S. Environmental Protection Agency
16	ETF	200 Area Effluent Treatment Facility
17	FDH	Fluor Daniel Hanford, Inc.
18	FFACO	Hanford Federal Facility Agreement and Consent Order
19	GW	Groundwater
20	HSWA	Hazardous and Solid Waste Amendments of 1984
21	HWMA	Hazardous Waste Management Act
22	LERF	Liquid Effluent Retention Facility
23	LSFF	105-DR Large Sodium Fire Facility
24	MTCA	Model Toxics Control Act
25	NCR	Nonconformance Report
26	OSWER	Office of Solid Waste and Emergency Response
27	PNNL	Pacific Northwest National Laboratory
28	QA	Quality Assurance
29	QAPP	Quality Assurance Project Plan
30	QC	Quality Control
31	RCRA	Resource Conservation and Recovery Act of 1976
32	RCW	Revised Code of Washington
33	SAP	Sampling and Analysis Plan
34	SARA	Superfund Amendments and Reauthorization Act of 1986
35	SOP	Standard Operating Procedure

1	SWMU	Solid Waste Management Unit
2	TCLP	Toxicity Characteristic Leaching Procedure
3	TSD	Treatment, Storage, and/or Disposal
4	USDOE	U.S. Department of Energy
5	WAC	Washington Administrative Code
6	WAP	Waste Analysis Plan
7	183-H	183-H Solar Evaporation Basins
8	242-A	242-A Evaporator
9	300 ASE	300 Area Solar Evaporation
10	325 HWTUs	325 Hazardous Waste Treatment Units
11	303-K	303-K Storage Facility
12	305-B	305-B Storage Facility
13	616NRDWSF	616 Nonradioactive Dangerous Waste Storage Facility

PART I - STANDARD CONDITIONS

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I.A. EFFECT OF PERMIT

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

TSD units operating or closing under interim status shall maintain interim status until 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.1.b. The Conditions of this Permit shall be applied to the Facility as defined by the Permit Applicability Matrix (Attachment 3).

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

Fluor Daniel Hanford, Inc. 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.3. Coordination With The FFACO

Each TSD unit shall have an application for a final status permit or closure/post-closure plan submitted to the Department 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 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.

I.C. PERMIT ACTIONS

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

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

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

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

6 **I.C.3. Modifications**

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

15 **I.D. SEVERABILITY**

16 **I.D.1. Effect of Invalidation**

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

23 **I.D.2. Final Resolution**

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

31 **I.E. DUTIES AND REQUIREMENTS**

32 **I.E.1. Duty to Comply**

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

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

40 Compliance with the terms of this Permit does not constitute a defense to any order issued or
41 any action brought under Section 3007, 3008, 3013, or 7003 of RCRA (42 U.S.C. Sections
42 6927, 6928, 6934, and 6973), Section 104, 106(a) or 107 of the Comprehensive
43 Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) [42 U.S.C.
44 Sections 9604, 9606(a), and 9607], as amended by the Superfund Amendments and

1 Reauthorization Act of 1986 (42 U.S.C. 9601 et seq.), or any other federal, state, or local law
2 governing protection of public health or the environment; provided, however, that compliance
3 with this Permit during its term constitutes compliance at those areas subject to this Permit for
4 the purpose of enforcement with WAC 173-303-140, WAC 173-303-180, WAC 173-303-280
5 through -395, WAC 173-303-600 through -680, WAC 173-303-810, and WAC 173-303-830,
6 except for Permit modifications and those requirements not included in the Permit that
7 become effective by statute, or that are promulgated under 40 CFR Part 268 restricting the
8 placement of dangerous waste in or on the land.

9 **I.E.3. Duty to Reapply**

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

13 **I.E.4. Permit Expiration and Continuation**

14 This Permit, and all Conditions herein, will remain in effect beyond the Permit's expiration
15 date until the effective date of the new permit if the Permittees have submitted a timely,
16 complete application for renewal per WAC 173-303-806 and, through no fault of the
17 Permittees, the Department has not made a final Permit determination as set forth in WAC
18 173-303-840.

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

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

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

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

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

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

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

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

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

2 The Permittees shall allow the Department, or authorized representatives, upon the
3 presentation of Department credentials, to:

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

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

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

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

13 I.E.10. **Monitoring and Records**

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

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

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

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

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

40 i. The date, exact place and time of sampling or measurements;

41 ii. The individual who performed the sampling or measurements and their affiliation;

42 iii. The dates the analyses were performed;

43 iv. The individual(s) who performed the analyses and their affiliation;

- v. The analytical techniques or methods used; and,
- vi. The results of such analyses.

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

4 The Permittees shall give notice to the Department as soon as possible of any planned
5 physical alterations or additions to the Facility subject to this Permit. Such notice does not
6 authorize any noncompliance with or modification of this Permit.

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

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

- 10 i. The Permittees have submitted to the Department, by certified mail, overnight-express
11 mail, or hand delivery, a letter signed by the Permittees and a registered professional
12 engineer stating that the TSD unit has been constructed or modified in compliance with
13 the Conditions of this Permit; and,
- 14 ii. The Department has inspected the modified or newly constructed TSD unit, and finds
15 that it is in compliance with the Conditions of this Permit; or
- 16 iii. Within 15 days of the date of receipt of the Permittees' letter, the Permittees have not
17 received notice from the Department of its intent to inspect, prior inspection is waived,
18 and the Permittees may commence treatment, storage, and disposal of dangerous waste.

19 **I.E.13. Anticipated Noncompliance**

20 The Permittees shall give at least 30 days advance notice to the Department of any planned
21 changes in the Facility subject to this Permit or planned activity which might result in
22 noncompliance with Permit requirements.

23 If 30 days advance notice is not possible, then the Permittees shall give notice immediately
24 after the Permittees become aware of the anticipated noncompliance. Such notice does not
25 authorize any noncompliance with or modification of this Permit.

26 **I.E.14. Transfer of Permits**

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

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

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

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

- 39 i. Name, address, and telephone number of the Permittee responsible for the release or
40 noncompliant activity;
- 41 ii. Name, location, and telephone number of the unit at which the release occurred;

- 1 iii. Date, time, and type of incident;
- 2 iv. Name and quantity of material(s) involved;
- 3 v. The extent of injuries, if any;
- 4 vi. An assessment of actual or potential hazard to the environment and human health,
5 where this is applicable;
- 6 vii. Estimated quantity of released material that resulted from the incident; and,
- 7 viii. Actions which have been undertaken to mitigate the occurrence.
- 8 I.E.15.c. The Permittees shall report, in accordance with Conditions I.E.15.a. and I.E.15.b., any
9 information concerning the release or unpermitted discharge of any dangerous waste or
10 hazardous substances that may cause an endangerment to drinking water supplies or ground or
11 surface waters, or of a release or discharge of dangerous waste or hazardous substances or of
12 a fire or explosion at the Facility, which may threaten human health or the environment. The
13 description of the occurrence and its cause shall include all information necessary to fully
14 evaluate the situation and to develop an appropriate course of action.
- 15 I.E.15.d. For any release or noncompliance not required to be reported to the Department immediately,
16 a brief account must be entered within two (2) working days, into the TSD operating record,
17 for a TSD unit, or into the Facility operating record, inspection log or separate spill log, for
18 non-TSD units. This account must include: the time and date of the release, the location and
19 cause of the release, the type and quantity of material released, and a brief description of any
20 response actions taken or planned.
- 21 I.E.15.e. All releases, regardless of location of release or quantity of release, shall be controlled and
22 mitigated, if necessary, as required by WAC 173-303-145(3).
- 23 I.E.16. **Written Reporting**
- 24 Within 15 days after the time the Permittees become aware of the circumstances of any
25 noncompliance with this Permit which may endanger human health or the environment, the
26 Permittees shall provide to the Department a written report. The written report shall contain a
27 description of the noncompliance and its cause (including the information provided in the
28 verbal notification); the period of noncompliance including exact dates and times; the
29 anticipated time noncompliance is expected to continue if the noncompliance has not been
30 corrected; corrective measures being undertaken to mitigate the situation, and steps taken or
31 planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.
- 32 I.E.17. **Manifest Discrepancy Report**
- 33 I.E.17.a. For dangerous waste received from outside the Facility, whenever a significant discrepancy in
34 a manifest is discovered, the Permittees shall attempt to reconcile the discrepancy. If not
35 reconciled within 15 days of discovery, the Permittees shall submit a letter report in
36 accordance with WAC 173-303-370(4), including a copy of the applicable manifest or
37 shipping paper, to the Department.
- 38 I.E.17.b. For dangerous waste which is being transported within the Facility (i.e., shipment of on-site
39 generated dangerous waste), whenever a significant discrepancy in the shipping papers (see
40 Condition II.Q.I.) is discovered, the Permittees shall attempt to reconcile the discrepancy. If
41 not reconciled within 15 days of discovery, the Permittees shall note the discrepancy in the
42 receiving unit's operating record.

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

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

6 I.E.19. **Other Noncompliance**

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

10 I.E.20. **Other Information**

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

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

16 All written reports, notifications or other submissions which are required by this Permit to be
17 sent or given to the Director or Department should be sent certified mail, overnight express
18 mail, or hand delivered to:

19 Department of Ecology
20 200 Area Section
21 1315 West Fourth Avenue
22 Kennewick, Washington 99336
23 Telephone: (509) 735-7581

24
25 Telephonic and oral reports/notifications also need to be provided to the Department's
26 Kennewick Office.

27 This is the current phone number and address and may be subject to change. The Department
28 shall give the Permittees written notice of a change in address or telephone number. It is the
29 responsibility of the Permittees to ensure any required reports, notifications, or other
30 submissions are transmitted to the addressee listed in this Condition. However, the
31 Permittees shall not be responsible for ensuring verbal and written correspondence reaches a
32 new address or telephone number until after their receipt of the Department's written
33 notification.

34 I.E.22. **Annual Report**

35 The Permittees shall comply with the annual reporting requirements of WAC 173-303-
36 390(2)(a) through (e) and (g).

37 I.F. **SIGNATORY REQUIREMENT**

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

1 I.G. CONFIDENTIAL INFORMATION

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

4 I.H. DOCUMENTS TO BE MAINTAINED AT FACILITY SITE

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

- 8 1. This Permit and all attachments;
- 9 2. All dangerous waste Part B permit applications, post-closure permit applications,
10 and closure plans; and,
- 11 3. The Facility Operating Record.

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

PART II - GENERAL FACILITY CONDITIONS

- 1
- 2 **II.A. FACILITY CONTINGENCY PLAN**
- 3 II.A.1. The Permittees shall immediately carry out the provisions of the Contingency Plan as
4 provided in Appendix 7A of Attachment 33, 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 Facility Contingency Plan (Appendix 7A of Attachment 33). The Hanford
9 Facility Contingency Plan contains reference to unit-specific contingency plans included in
10 Part III of this Permit.
- 11 II.A.3. The Permittees shall review and amend, if necessary, the Hanford Facility Contingency Plan,
12 as provided in Permit Appendix 7A of Attachment 33, pursuant to WAC 173-303-350(5) and
13 in accordance with the provisions of WAC 173-303-830(4). The plan shall be amended
14 within a period of time agreed upon by the Department.
- 15 II.A.4. The Permittees shall comply with the requirements of WAC 173-303-350(3) and -360(1)
16 concerning the emergency coordinator, except the names and home telephone numbers will be
17 on file with the single point-of-contact, phone number (509) 373-3800 or 375-2400 as
18 described in the Hanford Facility Contingency Plan.
- 19 II.A.5. [Reserved]
- 20 **II.B. PREPAREDNESS AND PREVENTION**
- 21 II.B.1. The Permittees shall equip the Facility with the equipment specified in the Hanford Facility
22 Contingency Plan (Appendix 7A of Attachment 33) pursuant to WAC 173-303-340(1). Unit-
23 specific preparedness and prevention provisions are included in Parts III, V, and/or VI of this
24 Permit.
- 25 II.B.2. The Permittees shall test and maintain the equipment specified in the previous condition as
26 necessary to assure proper operation in the event of emergency.
- 27 II.B.3. The Permittees shall maintain access to communications or alarms pursuant to WAC 173-
28 303-340(2), as provided in the Hanford Facility Contingency Plan (Appendix 7A of
29 Attachment 33) and unit-specific contingency plans.
- 30 II.B.4. The Permittees shall comply with WAC 173-303-340(4) and WAC 173-303-355(1) pertaining
31 to arrangements with local authorities.
- 32 **II.C. PERSONNEL TRAINING**
- 33 II.C.1. The Permittees shall conduct personnel training as required by WAC 173-303-330. The
34 Permittees shall maintain documents in accordance with WAC 173-303-330(2) and (3).
35 Training records may be maintained in the Hanford Facility operating record or on electronic
36 data storage.
- 37 II.C.2. All Hanford Facility personnel shall receive general Facility training within six (6) months of
38 hire. This training shall provide personnel with orientation of dangerous waste management
39 activities being conducted on the Hanford Facility. This training shall include:
- 40 II.C.2.a. Description of emergency signals and appropriate personnel response,
- 41 II.C.2.b. Identification of contacts for information regarding dangerous waste management activities,
- 42 II.C.2.c. Introduction to waste minimization concepts,

- 1 II.C.2.e. Familiarization with the Hanford Facility Contingency Plan.
- 2 II.C.3. Description of training plans for personnel assigned to TSD units subject to this Permit are
3 delineated in the unit-specific chapters in Parts III, V, and/or VI of this Permit.
- 4 II.C.4. The Permittees shall provide the necessary training to non-Facility personnel (i.e., visitors,
5 sub-contractors) as appropriate for the locations such personnel will be at and the activities
6 that will be undertaken. At a minimum, this training shall describe dangerous waste
7 management hazards at the Facility.
- 8 II.D. WASTE ANALYSIS
- 9 II.D.1. All waste analyses required by this Permit shall be conducted in accordance with a written
10 waste analysis plan (WAP) or sampling and analysis plan (SAP). Operating TSD units shall
11 have a WAP, which shall be approved through incorporation of the TSD unit into Part III of
12 this Permit. Closing TSD units and units in post-closure should have a SAP and, if necessary,
13 a WAP which shall be approved through incorporation of the TSD unit into Part V and/or VI
14 of this Permit.
- 15 II.D.2. Until a WAP is implemented in accordance with Condition II.D.1., any unit(s) identified in
16 Parts III, V, and/or VI of this Permit without a unit-specific waste analysis plan approved by
17 the Department shall not treat, store, or dispose of dangerous waste, unless specified
18 otherwise by the Department in writing.
- 19 II.D.3. Each TSD unit WAP shall include:
- 20 i. The parameters for which each dangerous waste will be analyzed, and the rationale for
21 selecting these parameters;
- 22 ii. The methods of obtaining or testing for these parameters;
- 23 iii. The methods for obtaining representative samples of wastes for analysis (representative
24 sampling methods are discussed in WAC 173-303-110(2);
- 25 iv. The frequency with which analysis of a waste will be reviewed or repeated to ensure
26 that the analysis is accurate and current;
- 27 v. The waste analyses which generators have agreed to supply;
- 28 vi. Where applicable, the methods for meeting the additional waste analysis requirements
29 for specific waste management methods as specified in WAC 173-303-630 through
30 173-303-670; and,
- 31 vii. For off-site facilities, the procedures for confirming that each dangerous waste received
32 matches the identity of the waste specified on the accompanying manifest or shipping
33 paper. This includes at least:
- 34 (1) The procedure for identifying each waste movement at the Facility; and,
- 35 (2) The method for obtaining a representative sample of the waste to be identified, if
36 the identification method includes sampling.
- 37 II.D.4. Should waste analysis be required by this Permit at a location on the Facility other than at a
38 TSD unit, a SAP shall be maintained by the Permittees and made available upon request
39 from the Department. Any SAP required by this Permit not associated with a particular TSD
40 unit shall include the elements of Conditions II.D.3.(i) through II.D.3.(iv).

- 1 II.E. QUALITY ASSURANCE/QUALITY CONTROL
- 2 II.E.1. All WAPs and SAPs required by this Permit shall include a quality assurance/quality control
3 (QA/QC) plan, or equivalent, to document all monitoring procedures so as to ensure that all
4 information, data, and resulting decisions are technically sound, statistically valid, and
5 properly documented. Each QA/QC plan shall include, or contain a reference to another
6 document which will be used and includes, the elements defined in Conditions II.E.2. and
7 II.E.3. The QA/QC plan may be part of a SAP, WAP, or equivalent.
- 8 II.E.2. Each QA/QC plan shall contain a Data Quality Assurance Plan which includes the following:
- 9 II.E.2.a. A Data Collection Strategy section including, but not limited to, the following:
- 10 i. A description of the intended uses for the data, and the necessary level of precision and
11 accuracy for these intended uses; and,
- 12 ii. A description of methods and procedures to be used to assess the precision, accuracy,
13 and completeness of the measurement data;
- 14 II.E.2.b. A Sampling section which shall include or describe and reference or cite:
- 15 i. Sampling methods including the identification of sampling equipment, a description of
16 purging procedures, and a description of decontamination procedures to be used;
- 17 ii. Criteria for selecting appropriate sampling locations, depths, etc., or identification and
18 justification of sample collection points and frequencies;
- 19 iii. Criteria for providing a statistically sufficient number of samples as defined in EPA
20 guidance or criteria for determining a technically sufficient number of measurements to
21 meet the needs of the project as determined through the DQO planning process;
- 22 iv. Methods for, or specification of, measuring all necessary ancillary data;
- 23 v. Criteria for, or specification of, determining conditions under which sampling should
24 be conducted;
- 25 vi. Criteria for establishing, or specification of, which parameters are to be measured at
26 each sample collection point and the frequency that each parameter is to be measured;
- 27 vii. Criteria for, or specification of, identifying the type of sampling (e.g., composites vs.
28 grabs) and number of samples to be collected;
- 29 viii. Criteria for, or specification of, measures to be taken to prevent contamination of the
30 sampling equipment and cross contamination between sampling points;
- 31 ix. Methods and documentation of field sampling operations and procedure descriptions,
32 as appropriate, including:
- 33 (1) Documentation of procedures for preparation of reagents or supplies which
34 become an integral part of the sample (e.g., filters and absorbing reagents);
- 35 (2) Procedure descriptions and forms for recording the exact location, sampling
36 conditions, sampling equipment, and visual condition of samples;
- 37 (3) Documentation of specific sample preservation method;
- 38 (4) Calibration of field devices;
- 39 (5) Collection of replicate samples;
- 40 (6) Submission of field-biased blanks, where appropriate;

- 1 (7) Potential interferences present at the facility;
- 2 (8) Field equipment listing and sample containers;
- 3 (9) Sampling order; and,
- 4 (10) Descriptions of decontamination procedures.
- 5 x. Selection of appropriate sample containers, as applicable;
- 6 xi. Sample preservation methods, as applicable; and,
- 7 xii. Chain-of-custody procedure descriptions as applicable, including:
 - 8 (1) Standardized field tracking reporting forms to establish sample custody in the
 - 9 field prior to and during shipment; and,
 - 10 (2) Pre-prepared sample labels containing all information necessary for effective
 - 11 sample tracking, except where such information is generated in the field, in
 - 12 which case, blank spaces shall be provided on the pre-prepared sampling label.

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

- 14 i. Selecting appropriate field measurement locations, depths, etc.;
- 15 ii. Providing a statistically sufficient number of field measurements as defined in EPA
- 16 guidance or criteria for determining a technically sufficient number of measurements to
- 17 meet the needs of the project as determined through the DQO process;
- 18 iii. Measuring all necessary ancillary data;
- 19 iv. Determining conditions under which field measurements should be conducted;
- 20 v. Determining which media are to be addressed by appropriate field measurements (e.g.,
- 21 ground water, air, soil, sediment, etc.);
- 22 vi. Determining which parameters are to be measured and where;
- 23 vii. Selecting the frequency of field measurement and length of field measurements period;
- 24 and,
- 25 viii. Documenting field measurement operations and procedures, including:
 - 26 (1) Descriptions of procedures and forms for recording raw data and the specific
 - 27 location, time, and sampling conditions;
 - 28 (2) Calibration of field devices;
 - 29 (3) Collection of replicate measurements;
 - 30 (4) Submission of field-biased blanks, where appropriate;
 - 31 (5) Potential interferences present at the facility;
 - 32 (6) Field equipment listing; and,
 - 33 (7) Descriptions of decontamination procedures.

34 II.E.2.d. Where applicable, a Sample Analysis section which shall specify the following:

- 35 i. Chain-of-custody procedures, including:
 - 36 (1) Certification that all samples obtained for analysis will be delivered to a
 - 37 responsible person at the recipient laboratory who is authorized to sign for

- 1 incoming field samples, obtain documents of shipment, and verify the data
2 entered onto the sample custody records;
- 3 (2) Provision for a laboratory sample custody log; and,
4 (3) Specification of chain-of-custody procedures for sample handling, storage, and
5 disbursement for analysis.
- 6 ii. Sample storage procedure descriptions and storage times;
7 iii. Sample preparation methods;
8 iv. Descriptions of analytical procedures, including:
9 (1) Scope and application of the procedure;
10 (2) Sample matrix;
11 (3) Potential interferences;
12 (4) Precision and accuracy of the methodology; and,
13 (5) Method detection limits.
- 14 v. Descriptions of calibration procedures and frequency;
15 vi. Data reduction, validation, and reporting;
16 vii. Internal laboratory quality control checks, laboratory performance, and systems audits
17 and frequency; including:
18 (1) Method blank(s);
19 (2) Laboratory control sample(s);
20 (3) Calibration check sample(s);
21 (4) Replicate sample(s);
22 (5) Matrix-spiked sample(s);
23 (6) "Blind" quality control;
24 (7) Control charts;
25 (8) Surrogate samples;
26 (9) Zero and span gases; and,
27 (10) Reagent quality control checks.
- 28 II.E.3. Each QA/QC plan shall include a Data Management Plan, or equivalent, to document and
29 track data and results. This plan shall identify and establish data documentation materials and
30 procedures, project or unit file requirements, and project-related progress reporting
31 procedures and documents. The storage location for the raw data shall be identified. The
32 plan shall also provide the format to be used to record and, for projects, present the validated
33 and invalidated data and conclusions. The Data Management Plan shall include the following
34 as applicable:
- 35 II.E.3.a. A data record including the following:
36 i. Unique sample or field measurement code;
37 ii. Sampling or field measurement location including surveyed horizontal coordinates and
38 elevation of the sample location, and sample or measurement type;

- 1 iii. Sampling or field measurement raw data;
- 2 iv. Laboratory analysis ID number;
- 3 v. Result of analysis (e.g., concentration);
- 4 vi. Elevations of reference points for all ground water level measurements, including water
- 5 level elevation, top of casing elevation, and ground surface elevation; and,
- 6 vii. Magnetic computer records of all ground water, soil, surface water, and sediment
- 7 analytical data.
- 8 II.E.3.b. Tabular displays, as appropriate, illustrating:
 - 9 i. Unsorted validated and invalidated data;
 - 10 ii. Results for each medium and each constituent monitored;
 - 11 iii. Data reduction for statistical analysis;
 - 12 iv. Sorting of data by potential stratification factors (e.g., location, soil layer, topography);
 - 13 and,
 - 14 v. Summary data.
- 15 II.E.3.c. Graphical displays (e.g., bar graphs, line graphs, area or plan maps, isopleth plots, cross-
- 16 sectional plots or transects, three dimensional graphs, etc.), as appropriate, presenting the
- 17 following:
 - 18 i. Displays of sampling location and sampling grid;
 - 19 ii. Identification of boundaries of sampling area and areas where more data are required;
 - 20 iii. Displays of concentrations of contamination at each sampling location;
 - 21 iv. Displays of geographical extent of contamination;
 - 22 v. Aerial and vertical displays of contamination concentrations, concentration averages,
 - 23 and concentration maxima, including isoconcentration maps for contaminants found in
 - 24 environmental media at the Facility;
 - 25 vi. Illustrations of changes in concentration in relation to distance from the source, time,
 - 26 depth, or other parameters;
 - 27 vii. Identification of features affecting intramedia transport and identification of potential
 - 28 receptors;
 - 29 viii. For each round of ground water level measurements, maps showing the distribution of
 - 30 head measurements in each aquifer; and,
 - 31 ix. For each well, provide a hydrograph that shows the distribution of water level
 - 32 measurements taken during the time interval of the investigation.
- 33 II.E.4. Unless otherwise agreed upon in writing by the Department, the Permittees shall provide
- 34 notification of availability to the Department of all data obtained pursuant to this Permit
- 35 within 30 days of receipt by the Permittees, or after completion of QA/QC activities, if
- 36 applicable. If the Department agrees that data will be obtained on a routine basis for a
- 37 particular unit, the Permittees shall only be required to provide notification of data
- 38 availability within 30 days of first availability along with a statement as to expected
- 39 frequency of future data. If routine data is not acquired at the stated expected frequency, the
- 40 Permittees shall notify the department within 30 days with an explanation and revision, if
- 41 applicable. This notification requirement shall also apply to any other information obtained

1 from activities conducted, or data obtained, that may influence activities pursuant to this
2 Permit.

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

8 II.F. GROUNDWATER AND VADOSE ZONE MONITORING

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

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

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

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

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

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

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

40 II.F.2.d. For wells subject to this Permit, the Permittees shall achieve full compliance with Chapter
41 173-160 WAC and Chapter 18.104 RCW consistent with a rolling five (5) year schedule
42 agreed to by the Department and the Permittees. This process shall be completed by the year
43 2012.

- 1 **II.F.3. Well Construction**
- 2 All wells constructed pursuant to this Permit shall be constructed in compliance with Chapter
3 173-160 WAC.
- 4 **II.G. SITING CRITERIA**
- 5 The Permittees shall comply with the applicable notice of intent and siting criteria of WAC
6 173-303-281 and WAC 173-303-282, respectively.
- 7 **II.H. RECORDKEEPING AND REPORTING**
- 8 In addition to the recordkeeping and reporting requirements specified elsewhere in this
9 Permit, the Permittees shall comply with the following:
- 10 **II.H.1. Cost Estimate for Facility Closure**
- 11 The Permittees shall submit an annual report updating projections of anticipated costs for
12 closure and post-closure of TSD units incorporated into Parts III, V, and/or VI of this Permit.
13 This report will be submitted annually, by October 31, to the Department and reflect cost
14 updates as of September 30, of the past Fiscal Year.
- 15 **II.H.2. Cost Estimate for Post-Closure Monitoring and Maintenance**
- 16 The Permittees shall submit an annual report updating projections of anticipated costs for
17 post-closure monitoring and maintenance for TSD units incorporated into Parts III, V, and/or
18 VI of this Permit. This report will be submitted annually, by October 31, to the Department
19 and reflect cost updates as of September 30, of the past Fiscal Year.
- 20 **II.H.3. The Permittees are exempt from the requirements of WAC 173-303-620**
- 21 **II.I. FACILITY OPERATING RECORD**
- 22 **II.I.1. The Permittees shall maintain a written Facility Operating Record until ten (10) years after**
23 **post-closure or corrective action is complete and certified for the Facility, whichever is later.**
24 **Except as specifically provided otherwise in this Permit, the Permittees shall also record all**
25 **information referenced in this Permit in the Facility Operating Record within seven (7)**
26 **working days after the information becomes available. A TSD unit-specific operating record**
27 **shall be maintained for each TSD unit at a location identified in Parts III, V, and VI of this**
28 **Permit. Each TSD unit-specific operating record shall be included by reference in the Facility**
29 **Operating Record. Information required in each TSD unit-specific operating record is**
30 **identified on a unit-by-unit basis in Part III, V, or VI of this Permit. The Facility Operating**
31 **Record shall include, but not limited to, the following information:**
- 32 **II.I.1.a. A description of the system(s) currently utilized to identify and map solid waste management**
33 **units and their locations. The description of the system(s) is required to include an**
34 **identification of on-site access to the system's data, and an on-site contact name and telephone**
35 **number. In addition to, or as part of, this system(s), the Permittees shall also maintain a list**
36 **identifying active 90-day waste storage areas and dangerous waste satellite accumulation**
37 **areas and their locations. The list shall identify the location, the predominant waste types**
38 **managed at the area, and a date identifying when the list was compiled. Maps shall be**
39 **provided by the Permittees upon request by the Department;**
- 40 **II.I.1.b. Records and results of waste analyses required by WAC 173-303-300;**
- 41 **II.I.1.c. An identification of the system(s) currently utilized to generate Occurrence Reports. The**
42 **identification of the system(s) is required to include a description, an identification of an on-**

- 1 site location of hard-copy Occurrence Reports, an identification of on-site access to the
2 system's data, and an on-site contact name and telephone number;
- 3 II.I.1.d. Copies of all unmanifested waste reports;
- 4 II.I.1.e. Hanford Facility Contingency Plan as well as summary reports and details of all incidents that
5 require implementing the Contingency Plan, as specified in WAC 173-303-360(2)(k);
- 6 II.I.1.f. An identification of the system(s) currently utilized and being developed to record personnel
7 training records and to develop training plans. The identification of the system(s) is required
8 to include a description, an identification of on-site access to the system's data, and an on-site
9 contact name and telephone number;
- 10 II.I.1.g. Preparedness and prevention arrangements made pursuant to WAC 173-303-340(4) and
11 documentation of refusal by state or local authorities that have declined to enter into
12 agreements in accordance with WAC 173-303-340(5);
- 13 II.I.1.h. [Reserved]
- 14 II.I.1.i. An identification and description of the report containing closure and post-closure cost
15 estimates required by Conditions II.H.1. and II.H.2. The identification shall provide the on-
16 site location and document number of the report;
- 17 II.I.1.j. Documentation (e.g., waste profile sheets) of all dangerous waste transported to or from any
18 TSD unit subject to this Permit. This documentation shall be maintained in the receiving
19 unit's operating record from the time the waste is received;
- 20 II.I.1.k. An identification of the system(s) currently utilized to cross-reference waste locations to
21 specific manifest document numbers. The identification of the system(s) is required to
22 include a thorough description, an identification of an on-site location of a hard-copy data
23 report, an identification of on-site access to the system's data, and an on-site contact name and
24 telephone number;
- 25 II.I.1.l. [Reserved]
- 26 II.I.1.m. Annual Reports required by this Permit;
- 27 II.I.1.n. An identification of all systems currently utilized to record monitoring information, including
28 all calibration and maintenance records, and all original strip chart recordings for continuous
29 monitoring instrumentation. The identification of systems shall include a description of the
30 systems. The descriptions shall include a confirmation that the criteria of Condition I.E.10.e.
31 is provided by the utilization of the system. The identification of the systems shall also
32 include an identification of on-site access to the system's data, an on-site contact name and
33 telephone number;
- 34 II.I.1.o. [Reserved]
- 35 II.I.1.p. Summaries of all records of groundwater corrective action required by WAC 173-303-645;
- 36 II.I.1.q. An identification of the system(s) currently being utilized and being developed to evaluate
37 compliance with the Conditions of this Permit and with Chapter 173-303 WAC. The
38 identification of the system(s) shall include a description of the system(s), an identification of
39 on-site access to the system's data, and an on-site contact name and telephone number. The
40 description of the system(s) shall also include a definition of which portion(s) of the
41 system(s) are accessible to the Department;
- 42 II.I.1.r. All deed notifications required by this Permit (to be included by reference);
- 43 II.I.1.s. All inspection reports required by this Permit; and,

- 1 II.I.1.t. All other reports as required by this Permit, including ECNs and NCRs.
- 2 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.,
3 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,
4 September 28, 1995.
- 5 II.J. FACILITY CLOSURE
- 6 II.J.1. Final closure of the Hanford Facility will be achieved when closure activities for all TSD
7 units have been completed, as specified in Parts III, IV, V, or VI of this Permit. Completion
8 of these activities shall be documented using either certifications of closure, in accordance
9 with WAC 173-303-610(6), or certifications of completion of post-closure care, in accordance
10 with WAC 173-303-610(11).
- 11 II.J.2. The Permittees shall close all TSD units as specified in Parts III, V, and/or VI of this Permit.
- 12 II.J.3. The Permittees shall submit a written notification of or request for a permit modification in
13 accordance with the provisions of WAC 173-303-610(3)(b) whenever there is a change in
14 operating plans, facility design, or the approved closure plan. The written notification or
15 request must include a copy of the amended closure plan for review or approval by the
16 Department.
- 17 II.J.4. The Permittees shall close the Facility in a manner that:
- 18 II.J.4.a. Minimizes the need for further maintenance;
- 19 II.J.4.b. Controls, minimizes or eliminates to the extent necessary to protect human health and the
20 environment, post-closure escape of dangerous waste, dangerous constituents, leachate,
21 contaminated run-off, or dangerous waste decomposition products to the ground, surface
22 water, ground water, or the atmosphere; and,
- 23 II.J.4.c. Returns the land to the appearance and use of surrounding land areas to the degree possible
24 given the nature of the previous dangerous waste activity.
- 25 II.J.4.d. Meets the requirements of WAC 173-303-610(2)(b).
- 26 II.K. SOIL/GROUNDWATER CLOSURE PERFORMANCE STANDARDS
- 27 II.K.1. For purposes of Condition II.K., the term "clean closure" shall mean the status of a TSD unit
28 at the Facility which has been closed to the cleanup levels prescribed by WAC 173-303-
29 610(2)(b) provided certification of such closure has been accepted by the Department.
- 30 II.K.2. The Permittees may close a TSD unit to background levels as defined in Department
31 approved Hanford Site Background Documents if background concentrations exceed the
32 levels prescribed by Condition II.K.1. Closure to these levels, provided the Permittees
33 comply with all other closure requirements for a TSD unit as identified in Parts III, V, and/or
34 VI of this Permit, shall be deemed as "clean closure."
- 35 II.K.3. Except for those TSD units identified in Conditions II.K.1., II.K.2., or II.K.4., the Permittees
36 may close a TSD unit to a cleanup level specified under Method C of Chapter 173-340 WAC.
37 Closure of a TSD unit to these levels, provided the Permittees comply with all other closure
38 requirements for the TSD unit as specified in Parts III, V, and/or VI of the Permit, and
39 provided the Permittees comply with Conditions II.K.3.a. through II.K.3.c., shall be deemed
40 as a "modified closure."
- 41 II.K.3.a. For "modified closures," the Permittees shall provide institutional controls in accordance with
42 WAC 173-340-440 which restricts access to the TSD unit for a minimum of five (5) years

1 following completion of closure. The specific details and duration of institutional controls
2 shall be specified in Parts III, V, and/or VI of this Permit for a particular TSD unit.

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

17 II.K.3.c. For "modified closures," the Permittees shall specify the specific activities required by this
18 Condition in a post-closure permit application.

19 II.K.4. For any TSD unit which Conditions II.K.1., II.K.2., or II.K.3., are not chosen as the closure
20 option, closing the TSD unit as a landfill may be selected. Closure and post-closure of the
21 TSD unit as a landfill must follow the procedures and requirements specified in WAC 173-
22 303-610.

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

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

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

40 II.L. DESIGN AND OPERATION OF THE FACILITY

41 II.L.1. **Proper Design and Construction**

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

- 1 **II.L.2. Design Changes, Nonconformance, and As-Built Drawings**
- 2 II.L.2.a. The Permittees shall conduct all construction subject to this Permit in accordance with the
3 approved designs, plans and specifications that are required by this Permit unless authorized
4 otherwise in Conditions II.L.2.b. or II.L.2.c. For purposes of Conditions II.L.2.b. and
5 II.L.2.c., a Department construction inspector or TSD unit manager are designated
6 representatives of the Department.
- 7 II.L.2.b. During construction of a project subject to this Permit, changes to the approved designs, plans
8 and specifications shall be formally documented with an Engineering Change Notice (ECN).
9 All ECNs shall be maintained in the TSD unit-specific operating record and shall be made
10 available to the Department upon request or during the course of an inspection. The
11 Permittees shall provide copies of ECNs affecting any critical system to the Department
12 within five (5) working days of initiating the ECN. Identification of critical systems shall be
13 included by the Permittees in each TSD unit-specific dangerous waste permit application,
14 closure plan or Permit modification, as appropriate. The Department will review an ECN
15 modifying a critical system and inform the Permittees within two (2) working days in writing
16 whether the proposed ECN, when issued, will require a Class 1, 2, or 3 permit modification.
17 If after two (2) working days the Department has not responded, it will be deemed as
18 acceptance of the ECN by the Department.
- 19 II.L.2.c. During construction of a project subject to this Permit, any work completed which does not
20 meet or exceed the standards of the approved design, plans and specifications shall be
21 formally documented with a nonconformance report (NCR). All NCRs shall be maintained in
22 the TSD unit-specific operating record and shall be made available to the Department upon
23 request or during the course of an inspection. The Permittees shall provide copies of NCRs
24 affecting any critical system to the Department within five (5) working days after
25 identification of the nonconformance. The Department will review an NCR affecting a
26 critical system and inform the Permittees within two (2) working days in writing whether a
27 permit modification is required of any nonconformance and whether prior approval is
28 required from the Department before work proceeds which affects the nonconforming item.
29 If the Department does not respond within two (2) working days, it will be deemed as
30 acceptance and no permit modification is required.
- 31 II.L.2.d. Upon completion of a construction project subject to this Permit, the Permittees shall produce
32 as-built drawings of the project which incorporate the design and construction modifications
33 resulting from all project ECNs and NCRs as well as modifications made pursuant to WAC
34 173-303-830. The Permittees shall place the drawings into the operating record within 12
35 months of completing construction, or within an alternate period of time specified in a unit-
36 specific Condition in Part III or V of this Permit.
- 37 **II.L.3. Facility Compliance**
- 38 The Permittees in receiving, storing, transferring, handling, treating, processing, and
39 disposing of dangerous waste shall design, operate, and/or maintain the Facility in compliance
40 with all applicable federal, state, and local laws and regulations.
- 41 **II.M. SECURITY**
- 42 The Permittees shall comply with the security provisions of WAC 173-303-310. The
43 Permittees may comply with the requirements of WAC 173-303-310(2) on a unit-by-unit
44 basis.

1 II.N. RECEIPT OF DANGEROUS WASTES GENERATED OFF-SITE

2 II.N.1. **Receipt of Off-Site Waste**

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

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

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

8 II.N.3. **Notice to Generator**

9 For waste received from off-site sources (except where the owner/operator is also the
10 generator), the Permittees shall inform the generator in writing that they have the appropriate
11 permits for, and will accept, the waste the generator is shipping, as required by WAC 173-
12 303-290(3). The Permittees shall keep a copy of this written notice as part of the TSD unit-
13 specific operating record.

14 II.O. GENERAL INSPECTION REQUIREMENTS

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

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

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

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

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

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

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

- 1 II.O.3. The inspection of high radiation areas will be addressed on a case-by-case basis in either Part
2 III of this Permit or prior to the inspections required in Condition II.O.1.
- 3 II.P. MANIFEST SYSTEM
- 4 II.P.1. The Permittees shall comply with the manifest requirements of WAC 173-303-370 for waste
5 received from off-site and WAC 173-303-180 for waste shipped off-site.
- 6 II.P.2. Transportation of dangerous wastes along State Highways 240, 24, and 243, and Route 4
7 South (Stevens Drive) south of the Wye Barricade, if such routes are not closed to general
8 public access at the time of shipment, shall be manifested pursuant to Condition II.P.1.
- 9 II.Q. ON-SITE TRANSPORTATION
- 10 II.Q.1. Documentation must accompany any on-site dangerous waste which is transported to or from
11 any TSD unit subject to this Permit through or within the 600 Area, unless the roadway is
12 closed to general public access at the time of shipment. Waste transported by rail or by
13 pipeline is exempt from this Condition. This documentation shall include the following
14 information, unless other unit-specified provisions are designated in Part III or V:
- 15 II.Q.1.a. Generator's name, location, and telephone number;
- 16 II.Q.1.b. Receiving TSD unit's name, location, and telephone number;
- 17 II.Q.1.c. Description of waste;
- 18 II.Q.1.d. Number and type of containers;
- 19 II.Q.1.e. Total quantity of waste;
- 20 II.Q.1.f. Unit volume/weight;
- 21 II.Q.1.g. Dangerous waste number(s); and,
- 22 II.Q.1.h. Any special handling instructions.
- 23 II.Q.2. All non-containerized solid, dangerous waste transported to or from TSD units subject to this
24 Permit shall be covered to minimize the potential for material to escape during transport.
- 25 II.R. EQUIVALENT MATERIALS
- 26 II.R.1. The Permittees may substitute an equivalent or superior product for any equipment or
27 materials specified in this Permit. Use of equivalent or superior products shall not be
28 considered a modification of this Permit. A substitution will not be considered equivalent
29 unless it is at least as effective as the original equipment or materials in protecting human
30 health and the environment.
- 31 II.R.2. The Permittees shall place in the operating record (within seven (7) days after the change is
32 put into effect) the substitution documentation, accompanied by a narrative explanation, and
33 the date the substitution became effective. The Department may judge the soundness of the
34 substitution.
- 35 II.R.3. If the Department determines that a substitution was not equivalent to the original, it will
36 notify the Permittees that the Permittees' claim of equivalency has been denied, of the reasons
37 for the denial, and that the original material or equipment must be used. If the product
38 substitution is denied, the Permittees shall comply with the original approved product
39 specification or find an acceptable substitution.

1 II.S. LAND DISPOSAL RESTRICTIONS

2 Unless specifically identified otherwise in the FFACO, the Permittees shall comply with all
3 Land Disposal Restriction requirements as set forth in WAC 173-303-140.

4 II.T. ACCESS AND INFORMATION

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

8 II.U. MAPPING OF UNDERGROUND PIPING

9 II.U.1. By September 30, 1996, the Permittees shall submit a report to the Department which
10 describes the procedures proposed to be used to compile the information required by
11 Conditions II.U.2., II.U.3., and II.U.4. The report shall describe the methods which will be
12 used to retrieve the piping information, the estimated accuracy of the data to be provided,
13 quality assurance and/or quality control techniques to be employed including field
14 verification activities (i.e., surveying, ground penetrating radar, etc.) to support information
15 gathered from existing drawings, and conceptual examples of the product which will be
16 submitted.

17 II.U.2. By September 29, 1997, the Permittees shall make an initial submittal to the Department of
18 maps showing the location of dangerous waste underground pipelines (including active,
19 inactive, and abandoned pipelines which contain or contained dangerous waste subject to the
20 provisions of Chapter 173-303 WAC) on the Facility which are located outside of the fences
21 enclosing the 200 East, 200 West, 300, 400, 100N, and 100K Areas. These maps shall
22 identify the origin, destination, size, depth, and type (i.e., reinforced concrete, stainless steel,
23 cast iron, etc.) of each pipe and the location of their diversion boxes, valve pits, seal pots,
24 catch tanks, receiver tanks, and pumps, utilizing Washington State Plane Coordinates, NAD
25 83(91), meters. If the type of pipe material is not documented on existing drawings, the most
26 probable material type shall be provided. These maps shall be accompanied by a description
27 of the quality assurance and quality control measures used to compile the maps.

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

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

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

44 These schematics and any attachments, shall be maintained in the Facility Operating Record
45 and updated annually after the initial submittal with new or revised information. Each map

1 submittal required by this Condition shall incorporate information available six months before
2 the scheduled submittal date.

3 II.U.4. By September 28, 1998, the Permittees shall make an initial submittal to the Department of
4 maps showing the location of dangerous waste underground pipelines (including active,
5 inactive, and abandoned pipelines which contain or contained dangerous waste subject to the
6 provisions of Chapter 173-303 WAC) within the 200 East, 200 West, 300, 400, 100N, and
7 100K Areas. These maps will incorporate information available six months prior to the
8 scheduled submittal date. Thereafter, the maps will be updated on an annual basis to
9 incorporate additional information, as such information becomes available in accordance with
10 the FFACO milestone schedule. A schedule for the provision of map input shall be included
11 in the report specified in Condition II.U.1.

12 The maps shall identify the origin, destination, size, depth and type (i.e., reinforced concrete,
13 stainless steel, cast iron, etc.) of each pipe and the location of their diversion boxes, valve
14 pits, seal pots, catch tanks, receiver tanks, and pumps, and utilize Washington State Plan
15 Coordinates, NAD 83(91), meters. If the type of pipe material is not documented on existing
16 drawings, the most probable material type shall be provided. These maps need not include the
17 pipes within a fenced tank farm or within a building/structure. These maps shall be
18 accompanied by a description of the quality assurance/quality control used to compile the
19 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 Wide Operating Record
24 and updated annually after the initial submittal with new or revised information.

1 II.V. MARKING OF UNDERGROUND PIPING

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

8 II.W. OTHER PERMITS AND/OR APPROVALS

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

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

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

22 II.X. SCHEDULE EXTENSIONS

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

32 Copies of all correspondence regarding schedule extensions shall be kept in the operating
33 record.

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

1 **PART III - UNIT-SPECIFIC CONDITIONS FOR FINAL STATUS OPERATIONS**

2 **CHAPTER 1**

3 **616 Nonradioactive Dangerous Waste Storage Facility**

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

7 III.1.A. **COMPLIANCE WITH APPROVED PERMIT APPLICATION**

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

12 Part A, Form 3, Permit Application, Revision 7, March 1997

13 Section 2.1.3 The 616 Nonradioactive Dangerous Waste Storage Facility Description,
14 *from Class 1 Modification for quarter ending June 30, 1995*

15 Section 2.2 Topographic Maps

16 Section 2.5 Performance Standards, from Class 1 Modification for quarter ending
17 June 30, 1995

18 Section 2.7.1 Spills and Discharges Into the Environment, from Class 1 Modification for
19 quarter ending June 30, 1995

20 Section 2.8 Manifest System, from Class 1 Modification for quarter ending June 30,
21 1995

22 Chapter 3.0 Waste Characteristics, from Class 1 Modification for quarter ending June
23 30, 1995

24 Chapter 4.0 Process Information, from Class 1 Modification for quarter ending June
25 30, 1995

26 Chapter 6.0 Procedures to Prevent Hazards, from Class 3 Modification submitted
27 during Modification B

28 Chapter 7.0 Contingency Plan, from Class 1 Modification for quarter ending June 30,
29 1995

30 Chapter 8.0 Personnel Training, from Class 1 Modification for quarter ending
31 September 1997

32 Chapter 11.0 Closure and Post-Closure Requirements, from Class 1 Modification for
33 quarter ending June 30, 1995

34 Chapter 12.0 Reporting and Recordkeeping, from Class 1 Modification for quarters
35 ending June 30, 1995, and September 30, 1995

36 Section 13.7 Toxic Substance Control Act of 1976

37 Section 13.8 Other Requirements

38 Appendix 2A Drawing H- 13-000014, 616 NRDWSF Topographic Map

39 Appendix 4B Drawing H-6-1553, Architectural Plan, Elevations and Sections, Rev. 3

- 1 Appendix 4B Drawing H-6-1556, Structural Plan and Sections, Rev. 4, and four
2 engineering change notices from Class 1 Modification for quarter ending
3 June 30, 1995
- 4 Appendix 7A Building Emergency Plan - 616 Building, from Class 1 Modification for
5 quarter ending December 31, 1994
- 6 Appendix 8A Training Plan from Class 1 Modification for quarter ending September 30,
7 1997
- 8 Appendix 11B Description of Procedures from Class 1 Modification for quarter ending
9 June 30, 1995
- 10 III.1.B. AMENDMENTS TO THE APPROVED PERMIT APPLICATION
- 11 III.1.B.a. Page 3-10, lines 11-17. Delete the first sentence of the paragraph and replace it with the
12 following: "To be acceptable at 616 NRDWSF, samples of non-radioactive waste streams
13 must be documented to have been sent to a laboratory for waste profiling when newly
14 identified or whenever the process used or raw materials usage changes, and at least annually
15 thereafter, to ensure that the waste designation assigned by the Solid Waste Engineering staff
16 (Section 3.2) is accurate and in compliance with land ban restrictions."
- 17 III.1.B.b. Page 3-16, lines 29 and 30. The following line is added to the end of the paragraph: "The
18 laboratory verification results shall be obtained in accordance with WAC 173-303-110."
- 19 III.1.B.c. Page 2-16, lines 25 and 27. The address "7601 West Clearwater, Suite 102" shall be changed
20 to "1315 West Fourth Avenue" and the telephone number "509-546-2990" shall be changed to
21 "509-735-7581."

- 1 III.2.B.b. Page 3-5, line 41. The following text is added: "The 305-B personnel shall collect from the
2 generating unit(s) the information pursuant to 40 CFR 268.7(a) regarding Land Disposal
3 Restricted (LDR) wastes, the appropriate treatment standards, whether the waste meets the
4 treatment standards, and the certification that the waste meets the treatment standards, if
5 necessary, as well as any waste analysis data that supports the generator's determinations. If
6 this information is not supplied by the generating unit, then the 305-B personnel shall be
7 responsible for completion and transmittal of all subsequent information regarding LDR
8 wastes, pursuant to 40 CFR 268.7(b). All waste streams must be re-characterized at least
9 annually, or when generating unit and/or 305-B personnel have reason to believe the waste
10 stream has changed, to determine compliance with LDR requirements in 40 CFR 268."
- 11 III.2.B.c. Page 3-9, line 16. The following is added to the end of this section: "Storage limits for all
12 chemicals are listed in Table 4-1, page 4-18, and 4-19 (Uniform Building Code, Table
13 numbers 9-A and 9-B). This table is incorporated into this section by reference."
- 14 III.2.B.d. Page 3-10, line 27. The following paragraphs are inserted into this section:
15 "Prior to acceptance of wastes at 305-B, confirmation of designation may be required (Section
16 3.2.4). The wastes which shall undergo confirmation of designation are identified in
17 Condition III.2.B.f. of this Permit and may be divided into two groups; those that easily yield
18 a representative sample (Category I), and those that do not (Category II). The steps for each
19 type are outlined below along with a description of which wastes fall into each category:
20 Category I. If a waste which easily yields a representative sample is received, a representative
21 sample will be taken from the waste containers selected. If more than one phase is present,
22 each phase must be tested individually. The following field tests will be performed as
23 appropriate for the waste stream:
24 * Reactivity - HAZCAT™ oxidizer, cyanide, and sulfide tests. These tests will not be
25 performed on materials known to be organic peroxides, ethers, and/or water reactive
26 compounds.
27 * Flashpoint/explosivity - by HAZCAT™ flammability procedure, explosive
28 atmosphere meter¹, or a closed cup flashpoint measurement instrument¹.
29 * pH - by pH meter¹ or pH paper (SW-846-9041)². This test will not be performed on non-
30 aqueous materials.
31 * Halogenated organic compounds - by Chlor-D-Tect™ kits.
32 * Volatile organic compounds - by photo or flame ionization tester¹, by gas chromatography
33 with or without mass spectrometry, or by melting point and/or boiling point determination.
34 ¹These instruments are field calibrated or checked for accuracy daily when in use.
35 ²The pH paper must have a distinct color change every 0.5 pH unit and each batch
36 of paper must be calibrated against certified pH buffers or by comparison with a pH meter
37 calibrated with certified pH buffers.
38 If the sample data observed meets the parameters specified in its documentation, confirmation
39 of designation is complete and the waste may be accepted. If not, the waste is rejected and
40 returned to the generating unit, and sampling and analysis. The waste will be required to be
41 included with a resubmitted CDRR if generator process knowledge or other information is not
42 available to properly characterize and identify the waste.
43 When mathematically possible, the Permittees shall perform confirmation on an equal number
44 of Category I and Category II containers.

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

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

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

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

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

34 III.2.B.g. Part A Application, Page 3Q of 5, lines 10 and 11. Waste Code WC01 shall be deleted and
35 the estimated annual volume of Waste Code WC02 shall be changed to 2,000 kilograms.

36

1 CHAPTER 3

2 **PUREX Storage Tunnels**

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

6 III.3.A COMPLIANCE WITH APPROVED PERMIT APPLICATION

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

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

12 Section 2.1 The PUREX Storage Tunnels Description

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

15 Chapter 3.0 Waste Analysis

16 Chapter 4.0 Process Information

17 Chapter 6.0 Procedures to Prevent Hazards

18 Chapter 7.0 Contingency Plan

19 Chapter 8.0 Personnel Training

20 Chapter 10.0 Waste Minimization

21 Chapter 11.0 Closure and Financial Assurance

22 Chapter 12.0 Reporting and Record Keeping

23 Chapter 13.0 Other Federal and State Laws

24 Appendix 2A Topographic Map

25 Appendix 3A Waste Analysis Plan for PUREX Storage Tunnels

26 Appendix 4A Engineering Drawings, including Class 1 Modifications from quarter
27 ending June 30, 1997

28 Appendix 7A Unit-Specific Contingency Plan for the 218-E-14 and 218-E-15 Storage
29 Tunnels

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

31 III.3.B AMENDMENTS TO THE APPROVED PERMIT APPLICATION

32 III.3.B (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
7 the 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
9 are also enforceable unless stated otherwise):

10 LERF Part A, Form 3, Permit Application, Revision 5

11 ETF Part A, Form 3, Permit Application, Revision 2

12 Section 2.2 Topographic Map

13 Section 3.2 Waste Analysis Plan

14 Chapter 4.0 Process Information

15 Chapter 5.0 Groundwater Monitoring

16 Chapter 6.0 Procedures to Prevent Hazards

17 Chapter 7.0 Contingency Plan

18 Chapter 8.0 Personnel Training

19 Chapter 11.0 Closure and Financial Assurance

20 Chapter 12.0 Reporting and Record Keeping

21 Chapter 13.0 Other Federal and State Laws

22 Appendix 2A Topographic Map

23 Appendix 3A Waste Analysis Plan for the Liquid Effluent Retention Facility
24 and 200 Area Effluent Treatment Facility

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

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

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

30 Appendix 7A Building Emergency Plan for the Liquid Effluent Retention
31 Facility and 200 Area Effluent Treatment Facility

32 Appendix 8A 200 Area Liquid Waste Processing Facilities Administrative
33 Policies, Dangerous Waste Training Plan

34 II.4.B. AMENDMENTS TO THE APPROVED PERMIT APPLICATION

35 II.4.B.a. Section 4.4.6; add the following paragraph, "All tanks systems holding dangerous waste
36 are marked with labels or signs to identify the waste contained in the tank. The labels or
37 signs are legible at a distance of at least fifty feet and bear a legend that identifies the
38 waste in a manner which adequately warns employees, emergency response personnel, and

- 1 the public of the major risk(s) associated with the waste being stored or treated in the tank
2 system(s)".
- 3 III.4.B.b. Appendix 3A, Waste Analysis Plan for the Liquid Effluent Retention Facility and 200
4 Area Effluent Treatment Facility
- 5 III.4.B.b.1. The Permittees shall comply with all the requirements subsections, figures, tables, and
6 appendices included in the "Waste Analysis Plan for Liquid Effluent Retention Facility
7 and 200 Area Effluent Treatment Facility," except that the "Wastewater Profile Sheet form
8 is included as an example only. The actual Wastewater Profile Sheet format may vary, but
9 will contain the same substantive information as the example form.
- 10 III.4.B.b.2. Section 1.0 Introduction
- 11 After lines 38 to 40 on page 1-2 ("Therefore, revisions of this WAP that are not governed
12 by the requirements of WAC 173-303 will not be considered as a modification subject to
13 review or approval by Ecology.") add the following: "However, any revision to this WAP
14 will be incorporated into the Hanford Dangerous Waste Permit at least annually."
- 15 III.4.B.b.3. Section 1.1 Liquid Effluent Retention Facility and Effluent Treatment Facility Description
- 16 Delete the word "access" in line 3 of page 1-3 and replace it with "aqueous."
- 17 III.4.B.b.4. Section 1.1 Liquid Effluent Retention Facility and Effluent Treatment Facility Description
- 18 Delete the phrase "and analyzed" in line 28 of page 1-4. The sample of treated effluent
19 from the verification tanks is not analyzed in-line, but is transferred to a laboratory for
20 analysis.
- 21 III.4.B.b.5. Section 2.2 Waste Management Decision Process
- 22 Insert the word "to" in line 28 of page 2-4, so the item reads as follows: "An aqueous
23 waste is not allowed under the current Discharge Permit or Final Delisting, and LERF/ETI
24 management elect not to pursue an amendment, or the permit and Delisting cannot be
25 amended (Section 2.2.1)."
- 26 III.4.B.b.6. Section 4.1 Sampling Procedures
- 27 Replace the sentence, "Other exceptions will be handled on a case-by-case basis." with
28 "Other exceptions will be handled on a case-by-case basis and the operating record will be
29 maintained at the unit for inspection by the Department."
- 30 III.4.B.b.7. Section 6.1 Dry Powder Waste
- 31 The following terms used in this section, including powder, dry powder, waste powder,
32 and dry waste powder, are equivalent to the term "dry powder waste" as defined in lines 21
33 through 28 on page 6-1.
- 34 III.4.B.b.8. Section 6.3 Other Waste Generated at the 200 Area Effluent Treatment Facility
- 35 Insert the phrase "according to Washington State regulatory requirements" after the word
36 "designated" in line 11 on page 6-5.
- 37 III.4.B.b.9. Table 6-1. 200 Area Effluent Treatment Facility Powder, Concentrate, Tank, Maintenance
38 and Operations, and Unknown Waste Sampling
- 39 Footnote 1 is revised as follows: For concentrate tank samples, the total sample (solid
40 plus liquid) is analyzed and the analytical result is expressed on the dry weight basis. The
41 result for each toxicity characteristic metal and organic is divided by a factor of 20 and
42 then compared to the Toxicity Characteristic (TC) constituent limits [WAC 173-303-

- 1 090(8)]. If the TC limit is met or exceeded, the waste is designated accordingly. All
2 measured parameters are compared against the corresponding treatment standards.
- 3 III.4.B.b.10. Section 7.2 Analytical Program
- 4 The beginning of Section 7.2 Analytical Programs is repeated on page 7-1. Delete the
5 portion on page 7-1. Replace the sentence "The quality control/quality assurance program
6 of the onsite analytical laboratory is based on Hanford Site analytical services quality
7 assurance/quality control requirements." with "The quality assurance/quality control
8 program for sampling and must comply with the applicable Hanford Site standard
9 requirements and the regulatory requirements. All analytical data will be defensible and
10 will be traceable to specific, related quality control samples and calibrations."
- 11 III.4.B.b.11. Appendix B Table B-1 Sample and Analysis Criteria for Influent Aqueous Waste and
12 Treated Effluent and Table B-2 Sample Containers, Preservative Methods, and Holding
13 Times for ETF Powder, Concentrate Tank, Maintenance and Operations, and Unknown
14 Waste
- 15 Footnote "c" on page APP B-2 is deleted.
- 16 III.4.B.c. Liquid Effluent Retention Facility Final Ground Water Monitoring Plan, PNNL-11620, is
17 an integral Part of this permit and is to be added as Appendix 5A to the 200 Area Liquid
18 Waste Complex Permit Application.
- 19 III.4.B.d. Appendix 7A, Building Emergency Plan for 200 Area Effluent Treatment Facility and
20 Liquid Effluent Retention Facility.
- 21 III.4.B.d.1. Section 3.2, add to end of first paragraph; "Only qualified personnel will perform response
22 actions."
- 23 III.4.B.d.2. Section 5.2.1, add to end of first sentence of first paragraph; "other than the
24 radioactive/dangerous/mixed waste discussed in Section 5.2.3."

- 1 Table 3, Page 5-5, Add footnote "f" to title of the table and add footnote "f. This table is
2 used to ensure process condensate generated from candidate feed tank treatment is within
3 Liquid Effluent Retention Facility liner compatibility limits."
- 4 III.5.B.a.4. Section 6.1.2. Candidate Feed Tank Sampling Quality Assurance and Quality Control
5 Delete lines 5 through 6 on page 6-2 ("Trip blanks are analyzed for those constituents
6 detected in the field blanks.") and replace with the following: "Trip blanks are analyzed as
7 independent samples for volatile organics analysis."
- 8 III.5.B.a.5. Section 6.1.2. Candidate Feed Tank Sampling Quality Assurance and Quality Control
9 Delete the word "discrete" from line 18 on page 6-2 and insert the word "unique."
- 10 III.5.B.a.6. Section 6.1.3. Process Condensate Sample Collection
11 Append to lines 32 through 33 on page 6-2 ["Samples of process condensate are collected
12 in a manner consistent with SW-846 procedures (EPA 1986)."] the following text: "...as
13 documented in sampling procedures which are maintained and implemented by unit
14 personnel."
- 15 III.5.B.a.7. Table 5. Analytes for Candidate Feed Tanks.
16 On page 6-4, delete the word "method" and insert the word "technique" in the heading of
17 column 2.
- 18 III.5.B.a.8. Section 7.3 Laboratory Quality Assurance and Quality Control
19 In line 40, delete "matrix spike –" and in line 43, replace "accuracy" with "precision" and
20 add a new sentence at the end of the paragraph, "Accuracy for DSC is evaluated by using
21 the laboratory control standard."
- 22 III.5.B.a.9. Section 7.3 Laboratory Quality Assurance and Quality Control
23 Add a new paragraph, "The quality assurance/quality control program for sampling and
24 analysis related to this unit must, at a minimum, comply with the applicable Hanford Site
25 standard requirements and the regulatory requirements. All analytical data shall be
26 defensible and shall be traceable to specific, related quality control samples and
27 calibrations."
- 28 III.5.B.a.10. Table 7. Quality Assurance Objectives for Candidate Feed Tank Stream Analytes.
29 Delete the word "Objectives" from the title of the table and insert the word
30 "Requirements."
- 31 III.5.B.a.11. Table 7. Quality Assurance Objectives for Candidate Feed Tank Stream Analytes.
32 In column 4, delete the words "matrix spike", so the heading reads as follows: "Precision
33 (RPD between duplicates), %."
- 34 III.5.B.a.12. Table 7. Quality Assurance Objectives for Candidate Feed Tank Stream Analytes.
35 Delete Footnote I and replace with "Reserved".
- 36 III.5.B.a.13. Table 7. Quality Assurance Objectives for Candidate Feed Tank Stream Analytes.
37 In line 6, under "Accuracy" column, add "4" to table entry "N/A" and add to the end of
38 footnote 4, "Accuracy for DSC is evaluated by using the laboratory control standard."
39

- 1 The acceptance of all dangerous waste received at the 325 TSD Units will be dependent
2 upon their packaging. The practice of hand carrying single walled waste containers will
3 no longer be acceptable. Each waste container shall have secondary containment with
4 absorbent materials packed around the contents.
- 5 III.6.B.e. The final design drawings and operable status of the proposed 325 Collection/Loadout
6 Station Tank shall be submitted for Department approval at least 30 days before entering
7 into a contract for installation or 120 days before the tank system begins operation.
- 8 III.6.B.f. The Permittee must conduct integrity assessments over the life of the two tank systems in
9 this TSD unit, to ensure that the tanks retain structural integrity per WAC 173-303-640.
10 Records must be maintained in the Operating Record for this TSD unit. Within 30 days of
11 completion of each assessment, data relating to each tank system shall be made available,
12 upon request, to the Department for review
- 13 III.6.B.g. Within 3 months of final installation of the new tank, the Permittee shall submit to
14 Ecology a written integrity assessment, which has been reviewed and certified by an
15 independent, qualified registered professional engineer in accordance with WAC 173-303-
16 810 (13)(a).
- 17 III.6.B.h. The TSD unit shall comply with all applicable Subpart AA and BB requirements of the
18 Air Emission Standards. The Permittee shall submit to the Department, a copy of the
19 assessment performed to meet requirements of Subpart AA and BB within 30 days of
20 issuance of this Permit.
- 21 III.6.B.i. In response to the request in Chapter 11.0, Section 11.7, of Attachment 37, the Permittees
22 are granted two years to close the TSD unit. This time period is necessitated by the high
23 levels of radioactivity in the materials that are present, particularly in the six
24 interconnected hot cells. Removal of waste inventory from the TSD unit is an activity of
25 closure.
- 26 III.6.B.j. Telephone number(s) for a point-of-contact at each of the three units of the HWTUs shall
27 be provided in the Waste Analysis Plan (i.e., Unit Description) and provided to the
28 Department within 30 days of the issuance of this Permit.
- 29 III.6.B.k. All process knowledge and analytical data that are used for waste characterization, LDR
30 determination, and/or treatment activities at this TSD unit shall be documented and placed
31 in the Operating Record.
- 32 III.6.B.l. Shipments of waste shall not be accepted from any onsite generator without LDR
33 information, if applicable, accompanying each shipment. The TSD unit staff shall obtain,
34 from the onsite generator, the information necessary to determine the waste code,
35 treatability group (i.e., wastewater versus non-wastewater), subcategory, and identification
36 of underlying hazardous constituents for certain characteristic waste. A member of the
37 TSD unit staff may sign the LDR certification as a representative of the generator.
- 38 III.6.B.m. Shipments of waste shall not be accepted from any offsite generator without LDR
39 certification, if applicable, accompanying each shipment. For waste received from offsite
40 generators, the TSD unit shall receive the information pursuant to 40 CFR 268 regarding
41 Land Disposal Restricted wastes. The generator must sign the LDR certification.
- 42 III.6.B.n. The quality assurance/quality control program for sampling and analysis related to this
43 TSD unit must, at a minimum, comply with the applicable Hanford Site standard
44 requirements and regulatory requirements. All analytical data shall be defensible and shall
45 be traceable to specific, related quality control samples and calibrations.

- 1 III.6.B.o. Within 30 days of the issuance of this Permit, the Permittees shall submit the following for
2 review and approval by the Department: for each parameter, the respective accuracy,
3 precision, and quantitation limit (or minimum detectable activity) necessary to meet the
4 regulatory or decision limit. These data quality requirements shall be added to the Waste
5 Analysis Plan and become enforceable conditions of the Permit. For determining the
6 toxicity characteristics, SW-846 Method 1311 remains the required extraction method.
- 7 III.6.B.p. For a given parameter, analytical methods are selected and may be modified as long as the
8 applicable precision, accuracy, and quantitation limit (or minimum detectable activity)
9 necessary to meet the regulatory or decision limit can be met or improved. (Note: the
10 Permittee submission described in Condition III.7.B.o. will define these data quality
11 requirements for this TSD unit.)
- 12 III.6.B.q. Chapter 2.0, Page 2-1, line 14. This paragraph describes each unit within the HWTU.
13 Add the following text: "The Collection/Loadout Station Tank will be located in the
14 southeast corner of the basement of the 325 Building."
- 15 III.6.B.r. Chapter 2.0, Page 2-5, line 41. Change Figure 2-3b, to read "Figure 2.3b."
- 16 III.6.B.s. Chapter 2.0, Page 2-6, line 5. Replace "100-year flood plain" with the following: "500-
17 year flood plain."
- 18 III.6.B.t. APP 3A, page 4-7, Section 4.5.4, lines 37, 39, 45. Change each regulatory citation to read
19 as follows: "40 CFR 268."
- 20 III.6.B.u. APP 3A, page 4-7, line 41 - 42. Revise the text ("...as well as any waste-analyses data that
21 support the generator's determinations.") to read as follows: "...as well as any other data,
22 e.g., documented process knowledge and waste analysis data which support the generator's
23 determinations."
- 24 III.6.B.v. APP 3A, page 4-8, lines 5 - 12 and lines 22 - 28: Add a fifth bulleted item to read as
25 follows: "identification of underlying hazardous constituents"
- 26 III.6.B.w. App 3A, Page 4-8, line 31: Revise the text ("...signed by an authorized representative of
27 325 HWTUs...") to read as follows: "...signed by an authorized representative of the
28 generator..."

PART IV - CORRECTIVE ACTIONS FOR PAST PRACTICES

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

1 **PART V - UNIT-SPECIFIC CONDITIONS FOR UNITS UNDERGOING CLOSURE**

2 **CHAPTER 1**

3 **183-H Solar Evaporation Basin**

4 (Superseded by Part VI, Chapter 2)

5 The 183-H Solar Evaporation Basins (Basins) comprise an inactive TSD unit that is currently undergoing
6 permanent closure activities. This TSD unit was operated as an evaporation treatment unit for dangerous
7 wastes. This Chapter sets forth the closure requirements for this TSD unit. The 183-H Solar Evaporation
8 Basin Closure Plan has been completed and clean closure could not be achieved. The Modified Closure
9 Plan presented in Part VI, Chapter 2 now supersedes this Chapter.

10 V.1.A. **COMPLIANCE WITH APPROVED CLOSURE PLAN**

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

16 Part A, Form 3, Permit Application, Revision 4

17 Section I. General Closure Requirements, Introduction (Pages I-1 through I-6)

18 Section I.A-1. Minimize Need for Post-Closure Maintenance and Controls

19 Section I.A-2. Minimize Post-Closure Escape of Dangerous Waste

20 Section I.B. Content of Closure Plan

21 Section I.C. Certification of Closure, Survey Plat, Notice in Deed, and Financial
22 Requirements

23 Section II.B-1. Preliminary Cover Design

24 Section III.A-1. Inspection Plan

25 Section III.A-2g. Monitoring Plan Proposed to be Conducted Until Issuance of Final Status
26 Post-Closure Permit

27 Section III.A-3. Maintenance Plan

28 Section III.B. Personnel Training

29 Section III.C. Procedures to Prevent Hazards

30 Section III.D. Post-Closure Contact

31 Section III.E. Amendment of Post-Closure Plan

32 Section III.F. Certification of Completion of Post-Closure Care

33 Appendix A Topographical Maps

34 Appendix L Procedures for Sample Collection, Chain of Custody, and Field
35 Measurements

36 Appendix M Analytical Methods and Quality Control Procedures

37 Appendix N Personnel Training for Closure Activities

38 V.1.B. **AMENDMENTS TO THE APPROVED CLOSURE PLAN**

- 1 V.1.B.a. Page I-1, lines 9-12. The sentence found here is deleted and replaced with the following:
2 "Additionally, the 183-H Basins will be closed in accordance with the most current version of
3 all applicable environmental regulations and laws as well as the FFACO. New or modified
4 regulations and laws may require closure activities and/or the closure plan to be modified."
- 5 V.1.B.b. Page I-108, line 46. The reference to WAC 173-303-700 is deleted.
- 6 V.1.B.c. Page I-150, line 53. The date of "October 1991" is deleted and replaced with "the first
7 October after the effective date of this Permit."
- 8 V.1.B.d. Page III-77, line 5. The phone number (509) 376-5411 is changed to (509) 375-4647.
- 9 V.1.B.e. A copy of any Unusual Occurrence Report or Off Normal Occurrence Report issued after
10 approval of the Plan which is directly related to Basin closure shall be provided to the
11 Department's Basin unit manager within seven (7) days after issuance. This does not relieve
12 the Permittees from any other reporting requirements specified in Part I or II of this Permit.
- 13 V.1.B.f. Annual closure cost estimates shall be provided to the Department as described in Section
14 I.C.4. of this closure plan and Condition II.H.1. of this Permit.
- 15 V.1.B.g. A written notification that closure has begun and will be conducted in accordance with the
16 Plan, including these conditions to the Plan, shall be submitted to the Department within 30
17 days after the Plan is approved through issuance of this Permit.
- 18 V.1.B.h. Concrete sampling and analysis activities (basin and background sampling) shall be
19 conducted as described within the Plan and as augmented by the Decommissioning Work Plan
20 (DWP) entitled "Concrete Sampling - 183-H Solar Evaporation Basins" (DWP-H-080-00001)
21 as found in Attachment 12 of this Permit.
- 22 V.1.B.i. Soil sampling and analyses activities (including Phases I and II, berm and background
23 sampling) shall be conducted as described within the Plan and as augmented by DWP-H-080-
24 00005 entitled "Core Drill Sampling - 183-H Solar Evaporation Basins (Phase I);" WHC-SD-
25 EN-AP-056 entitled "183-H Solar Evaporation Basins Vadose Zone Sampling Plan;" and
26 DWP-H-026-00008 entitled "Berm Removal For 183-H Solar Evaporation Basins" as found
27 in Attachments 13, 14, and 15, respectively, of this Permit.
- 28 V.1.B.j. The results of Basin concrete sampling (including background sampling) shall be received by
29 the Department within 180 days of the effective date of this Permit. This submittal shall
30 include the raw analytical data, a summary of analytical results, a data validation package,
31 and a narrative summary with conclusions.
- 32 V.1.B.k. The results of Basin soil sampling (including Phases I and II, berm and background sampling)
33 shall be received by the Department within 180 days of the effective date of this Permit. This
34 submittal shall include the raw analytical data, a summary of analytical results, a data
35 validation package, and a narrative summary with conclusions.
- 36 V.1.B.l. The Department shall be provided, for review and approval, a sampling plan and the date of
37 sampling for any sampling event not addressed above which provides data used to support
38 Basin closure activities at least 30 days prior to initiating actual sampling activities. This
39 condition applies to, but is not limited to, equipment and non-concrete structural sampling and
40 verification sampling. The results of this sampling shall be submitted to the Department.
41 These submittals shall include the raw analytical data, a summary of analytical results, a data
42 validation package, and a narrative summary with conclusions.
- 43 V.1.B.m. The Permittees shall submit to the Department, for approval, a notification indicating which
44 closure option identified in Condition II.K. of this Permit will be utilized for the Basins. This
45 notification shall be submitted at least 60 days prior to implementation of the option and shall

- 1 be accompanied by the technical and regulatory justification for choosing the closure option
2 along with any supporting documentation including, if necessary, the result of sampling per
3 Conditions V.1.B.h. through V.1.B.i. This notification shall also be accompanied by a revised
4 Figure I.B-20 of the Plan indicating a new closure schedule; however, the date of final closure
5 shall not exceed eighteen months after the effective date of this Permit. Implementation of
6 the option cannot commence until receipt of the Department's written approval for the closure
7 option.
- 8 V.1.B.n. Regardless of the option chosen from Condition II.K., the Permittees and the independent,
9 registered, professional engineer certifications of closure shall be prepared and submitted to
10 the Department within 60 days of closure as described in Section I.C-1. of the closure plan.
- 11 V.1.B.o. If a landfill closure is chosen, the definitive design documents, construction specifications,
12 construction drawings, and construction quality assurance plans for any engineered system
13 (including a final cover system) shall be submitted to the Department pursuant to Condition
14 I.C.3.
- 15 V.1.B.p. After review of the documents identified in Condition V.1.B.o., the Department may issue a
16 unit-specific Construction Inspection Plan (CIP). If the Department chooses to issue a CIP,
17 the Department shall be provided with all submittals and notifications required by the CIP and
18 within the time period identified in the CIP.
- 19 V.1.B.q. If a landfill closure is chosen, notification of any of the following occurrences shall be
20 provided to the Department within 30 days of observance until a post-closure permit is issued:
21 settlement/sedimentation in the final cover greater than one (1) foot; actual vegetative cover
22 canopy on the final cover less than 50 percent (50%) of a typical Hanford cover canopy six
23 (6) months after closure; erosion of the final cover greater than six (6) inches; tampering or
24 damage to wells or well heads. The notification must include the extent and cause of the
25 occurrence as well as actions taken (or to be taken) to mitigate the occurrence.
- 26 V.1.B.r. If a modified closure is chosen, the Permittees shall request any reduction of landfill
27 requirements identified in the Plan pursuant to Condition I.C.3. This request shall be based
28 upon the quantity and concentration of contamination which will remain in place, and shall
29 meet the requirements of Condition II.K.3.
- 30 V.1.B.s. If a modified closure or landfill closure is chosen, a survey plat shall be prepared and
31 submitted to the Department and the Benton County Planning Department no later than 60
32 days after certification of closure as described in Section I.C-2. of the Plan.
- 33 V.1.B.t. If a modified closure or a landfill closure is chosen, a notice on the deed to the property shall
34 be prepared and submitted to the Auditor of Benton County no later than 60 days after
35 certification of closure as described in Section I.C-3. of the Plan. No later than 30 days after
36 submitting this notice, a certification signed by the Permittees must be submitted to the
37 Department that the notification has been recorded along with a copy of the notice itself.
- 38 V.1.B.u. If a modified closure or landfill closure is chosen, a revision to the "Final Status Post-Closure
39 Permit Application, 183-H Solar Evaporation Basins" (June 1988) shall be submitted pursuant
40 to Condition I.C.3. within 12 months of the Department's approval of the closure option.
- 41 V.1.B.v. Quarterly and annual ground water monitoring reports for the wells specified in the Plan shall
42 continue to be submitted to the Department until clean closure is acknowledged by the
43 Department in writing or as specified otherwise in a Basin post-closure permit.

CHAPTER 3

2727-S Nonradioactive Dangerous Waste Storage Facility

(Clean Closed, July 31, 1995)

The 2727-S Nonradioactive Dangerous Waste Storage Facility (2727-S) unit was operated as a storage unit for dangerous wastes. This Chapter set forth the closure requirements for this TSD unit.

This unit has been Clean Closed on July 31, 1995, in accordance with the approved Closure Plan contained in attachment 17 of this Permit.

CHAPTER 5

218-E-8 Borrow Pit Demolition Site

(Clean Closed, November 28, 1995)

The 218-E-8 Borrow Pit Demolition Site (218 BPDS) unit was operated as an open burning/open detonation unit for dangerous wastes. This Chapter set forth the closure requirements for this TSD unit.

This unit has been Clean Closed on November 28, 1995, in accordance with the approved Closure Plan contained in attachment 20 of this Permit.

CHAPTER 6

200 West Area Ash Pit Demolition Site

(Clean Closed, November 28, 1995)

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

1 CHAPTER 7

2 **2101-M Pond**

3 (Clean Closed, November 28, 1995)

4 The 2101-M Pond unit was operated as a disposal unit for potentially dangerous waste. This chapter set
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 12

2 **4843 Alkali Metal Storage Facility Closure Plan**

3 (Clean Closed, April 14, 1997)

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. This chapter sets forth the closure requirements for this TSD unit.

7 V.12.A. COMPLIANCE WITH APPROVED CLOSURE PLAN

8 The Permittees shall comply with all requirements set forth in Attachment 29, including the
9 amendments specified in Condition V.12.B. Enforceable portions of the Plan 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 3, October 1996

13 Section 1.1 Executive Summary

14 Section 2.2 Unit Description and Operations

15 Section 2.3 Security

16 Section 3.0 Process Information

17 Section 4.0 Waste Characteristics

18 Section 6.0 Closure Strategy and Performance Standards

19 Section 7.0 Closure Activities

20 Section 8.0 Post-Closure

21 Section 9.0 References

22 Appendix G Quality Assurance Project Plan

23 V.12.B. AMENDMENTS TO THE APPROVED CLOSURE PLAN

24 V.12.B.a. If closure activities have not begun and/or will not be conducted in accordance with the Plan,
25 including these unit-specific Conditions to the Plan, a written notification shall be submitted
26 to the Department within 30 days after the Plan is approved.

27 V.12.B.b. The Permittees shall notify the Department, in writing, if at any time it is determined the
28 clean closure levels specified in this plan are exceeded.

29 V.12.B.c. The Permittees and the independent, registered, professional engineer certification of closure
30 shall be prepared and submitted to the Department by registered mail within 60 days of
31 closure, as described in the Plan. The Permittees shall continue to address the unit as a
32 dangerous waste management unit until receipt of the Department's written notification
33 stating the unit is accepted as clean closed.

34 V.12.B.d. The Permittees shall complete 4843 AMSF closure activities 180 days after the effective date
35 of Revision 3 to this Permit.

1 CHAPTER 13

2 **3718-F Alkali Metal Treatment and Storage Facility Closure Plan**

3 The 3718-F Alkali Metal Treatment and Storage Facility was operated to treat and store alkali metal waste
4 from the Fast Flux Test Facility and from various laboratories that used alkali metals for experiments.
5 Contaminated equipment was treated using water, methanol, isopropyl alcohol, or 2-butoxy ethanol. Bulk
6 waste was treated by burning to eliminate the ignitability and reactive characteristics. After the burn
7 treatment, the waste was neutralized with acid to a pH between 2 and 12.5.

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

9 The Permittees shall comply with all requirements set forth in Attachment 30, including the
10 amendments specified in Condition V.13.B. 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 The operation of this facility resulted in the release of material, which may classify as
14 dangerous waste and/or dangerous constituents, to the soil surrounding the building and
15 concrete pad. A closure plan must address the full extent of operation and releases to the
16 environment. Therefore, the Department requires the owner/operator to conduct soil
17 sampling to determine the extent of the releases. The 3718-F Alkali Metal Treatment and
18 Storage Facility can not be released from interim status until it can be demonstrated that the
19 unit has been closed in accordance with closure requirements of WAC 173-303, or corrective
20 action has been completed.

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

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

25	Section 1.2	Closure Strategy
26	Chapter 2.0	Facility Description and Location Information
27	Chapter 5.0	Groundwater Monitoring
28	Chapter 6.0	Closure Performance Standards
29	Chapter 7.0	Closure Activities
30	Chapter 8.0	Post-Closure Plan

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

32 **V.13.B.a.** If closure activities have not begun and/or will not be conducted in accordance with the Plan,
33 including these unit-specific Conditions to the Plan, a written notification shall be submitted
34 to the Department within 30 days after the Plan is approved.

35 **V.13.B.b.** The Department shall be provided, for review and approval, a soil sampling and analysis plan
36 at least 30 days prior to initiating actual sampling. Such a plan shall include a schedule for
37 conducting sampling events. The analytical results of the sampling event will be used to
38 determine if corrective action will be required to close the 3718-F Alkali Metal Treatment
39 and Storage Facility.

40 **V.13.B.c.** The Department shall be provided a diagram of the 3718-F Alkali Metal Treatment and
41 Storage Facility unit boundary to be closed, addressing the maximum extent of operation.
42 The diagram should incorporate the fenced area surrounding the building indicating which

- 1 areas intentionally, or unintentionally, received waste. This diagram is to be submitted with
2 the sampling and analysis plan required by Condition V.13.B.b.
- 3 V.13.B.d. The soil samples shall be analyzed for all dangerous constituents documented to have been
4 potentially spilled or released at the 3718-F Alkali Metal Treatment and Storage Facility
5 during its operating life. These analyses shall be performed in accordance with WAC 173-
6 303-110 including the quality assurance and quality control requirements delineated in SW-
7 846.
- 8 V.13.B.e. The results of all sampling shall be submitted to the Department. These submittals shall
9 include the raw analytical data, a summary of analytical results, a data validation package,
10 and a narrative summary with conclusions.
- 11 V.13.B.f. The Permittees and the independent, registered, professional engineer shall prepare and
12 submit the certification of closure to the Department by registered mail within 60 days of
13 closure.
- 14 V.13.B.g. The Permittees shall continue to address the 3718-F Alkali Metal Treatment and Storage
15 Facility as a dangerous waste management unit until receipt of the Department's written
16 notification that the closure certification is accepted as clean closed.
- 17 V.13.B.h. The Permittees shall complete the 3718-F Alkali Metal Treatment and Storage Facility
18 closure activities within 180 days after the effective date of this Permit. This schedule may
19 be extended at Ecology's discretion based on the results of sampling conducted at the unit.
- 20 V.13.B.i. Any solid waste remaining at the unit or generated during sampling and/or decontamination
21 activities shall be designated and managed accordingly. The Department shall be informed in
22 writing of the final disposition of the waste.
- 23 V.13.B.j. A written notification shall be submitted to the Department regarding the final disposition of
24 equipment associated with or subject to decontamination, designation, removal, disposal,
25 recycling or reuse at the 3718-F Alkali Metal Treatment and Storage Facility.
- 26 V.13.B.k. The Permittees shall notify the Department, in writing, if at any time it is determined the
27 clean closure levels specified in this Plan are exceeded.
- 28 V.13.B.l. The Department will consider removal and decontamination complete when the
29 concentrations of dangerous waste, dangerous waste constituents, and dangerous waste
30 residues, which originated from the 3718-F Alkali Metal Treatment and Storage Facility,
31 throughout the areas affected by releases from this unit do not exceed numeric cleanup levels
32 for soils, groundwater, surface water, and air, determined using residential exposure
33 assumptions according to the MTCA 173-340, method A or B.
- 34 V.13.B.m. A Post-Closure permit will be required if dangerous wastes constituents, residues, or
35 decomposition products are left in place at concentrations above the numeric cleanup levels
36 determined using residential exposure assumptions under MTCA method A or B.
- 37 V.13.C CHANGES TO TEXT OF REVISION 2 OF THE CLOSURE PLAN (CHAPTER 13)
- 38 V.13.C.a. Page 6-2, line 8. Disregard first bullet. The bullet inaccurately states radioactive waste was
39 not managed at the unit. The 3718-F Alkali Metal Treatment and Storage Facility did manage
40 radioactive sodium according to *DOE-RL 1992a, 3718-F Alkali Metal Treatment and Storage
41 Facility Closure Plan, DOE-RL-91-35, Rev. 1*, U.S. Department of Energy, Richland Field
42 Office, Richland, Washington and the *300-FF-2 Operable Unit Technical Baseline Report,
43 BHI-00012, Rev. 00, Bechtel Hanford, Inc., Richland, Washington*.

- 1 of closure as described in Section 7.8 of the Plan. The Permittees shall continue to address
2 the 303-K as a dangerous waste management unit until receipt of the department's written
3 notification that the 303-K is accepted as clean closed.
- 4 V.14.B.f. The allowed time for closure is hereby extended in accordance with WAC 173-303-
5 610(4)(b)(i). The Permittees shall submit a certification of closure for 303-K no later than
6 September 30, 1998.
- 7 V.14.B.g. Compliance with the approved Sampling and Analysis Plan.
- 8 The Permittees shall comply with all the requirements set forth in the "303-K Storage Facility
9 Sampling and Analysis Plan" (as found in Attachment 38) and the "Errata Sheet for the 303-K
10 Storage Facility Sampling and Analysis Plan" (as found in Attachment 39) including the
11 amendments specified below. All subsections, figures, and tables included in the Sampling
12 and Analysis Plan also are enforceable unless otherwise stated.
- 13 V. 14.B.g.1. Section 5.1 Cleanup Performance Standards for Soils.
- 14 Insert the following after line 25 on page 5: "Using the Ecology publication, Model Toxics
15 Control Act Cleanup Levels and Risk Calculations (CLARC II) Update, February 1996
16 (Publication #94-145, as updated January 1996), cleanup levels shall be identified for all
17 constituents of concern. In addition, when a MTCA Method B value does not exist for a
18 constituent, the cleanup level shall be obtained from the appropriate Method A table in WAC
19 173-340."
- 20 Delete Table 1 on page 6.
- 21 V.14.B.g.2. Section 7.4 Support for Ecology during Sampling.
- 22 Delete lines 29 through 32 on page 16 ("Split samples of concrete and soil may be collected,
23 if requested, for Ecology. If split samples for Ecology are collected as part of this sampling
24 effort, then the...") and replace with the following: "Split samples of concrete and soil will be
25 collected for Ecology from each sampling location. The..."
- 26 V.14.B.g.3. Field analytical quality control will include analytical duplicate(s) and verification of the
27 method detection limit. Each field screening analytical duplicate sample will be collected
28 from the same volume of sample material as the original field screening analytical sample.
29 The frequency for these duplicates will be one per 20 samples or one per day of analysis,
30 whichever is more stringent. The procedure used for the verification of the method detection
31 limit is subject to approval by Ecology.
- 32 V.14.B.g.4. The laboratory quality control will be performed as described in the respective method, but
33 will include the following: The frequency for analytical quality control will be one in 20
34 samples or one per analytical batch, whichever is more stringent, for duplicate and spike (or
35 matrix spike) samples. Samples from this project must be chosen for the duplicate and spike
36 (or matrix spike) samples. At least one method blank and one quality control check sample
37 will be performed for each analytical batch.
- 38 V.14.B.g.5. Samples shall be placed immediately upon ice or refrigerated to 4 ± 2 degrees Celsius after
39 sampling and held at that temperature prior to and during shipping to the analytical
40 laboratory.
- 41 V.14.B.g.6. Loss of any sample due to any cause may require resampling and/or reanalysis, at the
42 discretion of the Department.
- 43 V.14.B.g.7 The results of all analyses required by the Sampling and Analysis Plan as revised by these
44 conditions shall be provided to the Department as stated in V.14.B.c. In addition to the items

1 listed, these submittals shall include calibration and quality control data. A data evaluation
2 report shall be submitted to the Department comparing the analytical results to the cleanup
3 levels for the 303-K, derived as described in Condition V.14.B.g.1. For data to be useable for
4 this comparison, the method quantification limit for the constituent must be equal to or less
5 than the cleanup level, or the method detection limit must be at least ten times below the
6 cleanup level, and the data package must be complete.

7 V.14.B.h. If any analytical result, except for arsenic and beryllium, for any sample location specified in
8 the Sampling and Analysis Plan exceeds the MTCA Method B cleanup level, then
9 characterization of the lateral and vertical extent of the contamination shall be required and
10 the Department shall pursue corrective action for this TSD unit. If arsenic or beryllium
11 exceed the established Hanford Sitewide Background values, then characterization of the
12 lateral and vertical extent of the contamination shall be required and the Department shall
13 pursue corrective action for this TSD unit.

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

2 **CHAPTER 1**

3 **300 Area Process Trenches**

4 The 300 Area Process Trenches were operated to receive effluent discharges of dangerous mixed waste
5 from fuel fabrication laboratories in the 300 Area. This chapter sets forth the modified closure
6 requirements.

7 **VI.1.A. COMPLIANCE WITH APPROVED MODIFIED CLOSURE PLAN**

8 The Permittees shall comply with all requirements set forth in Attachment 31, including all
9 Class 1 modifications through quarter ending July 1997, and amendments specified in
10 Condition VI.1.B. Enforceable portions of the plan are listed below. All subsections, figures,
11 and tables included in these portions are also enforceable unless otherwise stated. The
12 Permittees shall also comply with all the requirements in the 300-FF-1 and 300-FF-5 Record
13 of Decision and Addendum and the groundwater monitoring plan (WHC-SD-EN-AP-185,
14 Rev. 0A).

15 Part A, Form 3, Permit Application, Revision 4, May 1995

16 Section ADD-1 Addendum, Introduction

17 Section 1.3. Content of the Modified Closure/Post-Closure Plan

18 Chapter 4.0 Waste Characteristics. Summary of non-radionuclide data. Data is
19 located in the *Expedited Response Action Assessment for the 316-5*
20 *Process Trenches* (DOE/RL-92-32, Rev. 0)

21 Section 6.2.1. Minimize Need for Post-Closure Maintenance and Controls

22 Section 6.2.2. Minimize Post-Closure Escape of Dangerous Waste

23 Section 7.9. Amendment to Closure Plan

24 Section 7.10. Certification of Closure, Survey Plat, Notice in Deed, and Financial
25 Requirements

26 Section 8.2. Inspection Plan

27 Section 8.4. Maintenance Plan

28 Section 8.5. Personnel Training

29 Appendix 2A Photographs

30 Appendix 5A Groundwater References

31 Appendix 5B RCRA, Final Status Compliance Monitoring (WHC-SD-EN-AP-185, Rev.
32 0A)

33 Appendix 7A Sampling and Analysis Plan

34 Appendix 7B Sampling Data and Evaluation Package for the 300 Area Process Trenches

35 Appendix 7C Training Course Descriptions

36 Appendix 7D Summary of Pre- and Post- Expedited Response Action (ERA) Sampling
37 Data. Radionuclide data.

38 **VI.1.B. AMENDMENTS TO THE APPROVED MODIFIED CLOSURE PLAN**

- 1 VI.1.B.a. Page 1-1, line 34 will reference section II.K.3. of the Hanford Facility Wide Permit, which
2 covers modified closures.
- 3 VI.1.B.b. Pursuant to condition II.K.7. of the Hanford Facility Wide Permit, the 300 Area Process
4 Trenches (APT) closure shall be a Modified Closure in coordination with the Record of
5 Decision (ROD) for 300-FF-1 and 300-FF-5. Sections of CERCLA documents (examples
6 include, but are not limited to, Remedial Design/Remedial Action CERCLA work plan, the
7 Operation and Monitoring Work Plan, etc.) which satisfy requirements and conditions of this
8 Modified Closure Plan will be reviewed and approved by the Department.
- 9 VI.1.B.c. The Sampling and Analysis Plan, Appendix 7A (Verification Sampling), will be submitted to
10 the Department for approval. This will occur prior to all remedial actions within the 300
11 APT.
- 12 VI.1.B.d. Page 1-7, lines 9-13. This portion of the paragraph will be replaced by the following:
13 "Disposal of TSD unit soil into the Environmental Restoration Disposal Facility (ERDF) (or a
14 comparable RCRA Subtitle C Landfill) within the boundaries of the Hanford Facility is
15 allowed through an approved, contained in demonstration, based on MTCA B cleanup levels
16 (WAC-173-340) for the contamination carrying the F and U codes, and with TCLP data for
17 the characteristic waste."
- 18 VI.1.B.e. Page 6-1, lines 8-10. This portion of the paragraph will be replaced by the following: "Based
19 on data in addition to ERA data (DOE/RL-92-32), remediation will occur to meet all
20 Applicable Relevant and Appropriate Requirements (ARARs) within the trenches. This will
21 include removal of the spoils pile for chemical contamination above MTCA C Industrial
22 cleanup values. It has been concluded that when uranium is removed to the CERCLA
23 cleanup standard of 350 pCi/g, the Chemical Contaminants of Concern (COCs) will likely be
24 removed to below the cleanup standard, as well. Verification samples will be collected for
25 both chemicals and radioisotopes, as directed in the remedial action sampling and analysis
26 plan, to determine whether performance standards for the modified closure have been met."
- 27 VI.1.B.f. Page 6-1, line 11. The sentence here is deleted and replaced with the following: "When SD
28 soils are remediated, the cleanup levels achieved for RCRA constituents could qualify the
29 unit for clean closure of the soil."
- 30 VI.1.B.g. Page 6-1, lines 22-27. This portion of the paragraph will be removed.
- 31 VI.1.B.h. Page 6-2, line 23-27. These sentences will be deleted and replaced with the following:
32 "Final closure specifications are known and will be coordinated with the CERCLA cleanup
33 activities."
- 34 VI.1.B.i. As stipulated through the RCRA Final Status Compliance Monitoring Plan (i.e., WHC-SD-
35 EN-AP-185) Appendix IX, sampling shall not be required unless Post-Closure monitoring
36 results indicate a need to do so.
- 37 VI.1.B.j. Page 6-3, line 12-24. Presenting the option for Modified Closure is redundant. This
38 paragraph will be deleted.
- 39 VI.1.B.k. Page 6-4, lines 26-33. Presenting the Landfill Closure Option is not supported by sufficient
40 technical data. This paragraph will be deleted.
- 41 VI.1.B.l. Page 6-6, lines 14-15. This paragraph will be replaced with the following: "RCRA closure
42 verification will occur as part of the spoils pile removal, and will be in coordination with
43 CERCLA remedial activities."
- 44 VI.1.B.m. Page 6-6, lines 17-19. This paragraph will be replaced with the following: "The analytical
45 results of TSD screening/verification sampling will be reviewed by the Department. This

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

- 1 VI.2B.b Groundwater 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 groundwater monitoring program for the 183-H Solar Evaporation Basins.

HANFORD FACILITY WIDE PERMIT (REV. 4a)
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Updated February 25, 1998

PART I									
CONDITION		CATEGORY							QUALIFIERS
PART	TITLE	A	B ¹	C ²	D ³	E	F	G	
I.A.	Effect Of Permit								
I.A.1.a		*	*	*	*	*	*	*	
I.A.1.b		*	*	*	*	*	*	*	
I.A.2		*	*		*	*	*	*	
I.A.3	Coord. w/FFACO		*		*	*	*	*	
I.B.	Personal & Property Rights		*		*	*	*	*	
I.C.	Permit Actions								
I.C.1.	Modification, Revocation, Reissuance, or Termination		*		*	*	*	*	
I.C.2.	Filing of a Request		*		*	*	*	*	
I.C.3.	Modifications		*		*	*	*	*	
I.D.	Severability								
I.D.1.	Effect of Invalidation		*		*	*	*	*	
I.D.2.	Final Resolution		*		*	*	*	*	
I.E.	Duties & Requirements								
I.E.1.	Duty to Comply		*		*	*	*	*	

CATEGORIES ARE DEFINED AS FOLLOWS:

- A. Leased Land
- B. North Slope and ALE
- C. Interim Status TSD Units
- D. Areas Between TSDs (excluding A and B)

- E. TSD Unit Closures (in Part V)
- F. TSD Operating Units (in Part III)
- G. TSD Units in Post Closure/Modified Closure (in Part VI)

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

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

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PERMIT APPLICABILITY MATRIX

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PART	CONDITION TITLE	CATEGORY							QUALIFIERS
		A	B ¹	C ²	D ³	E	F	G	
I.E.2.	Compliance Not Constituting Defense		*		*	*	*	*	
I.E.3.	Duty to Reapply		*		*	*	*	*	
I.E.4.	Permit Expiration & Continuation		*		*	*	*	*	
I.E.5.	Need to Halt or Reduce Activity Not a Defense		*		*	*	*	*	
I.E.6.	Duty to Mitigate		*		*	*	*	*	
I.E.7.	Proper Operation & Maintenance		*			*	*	*	
I.E.8.	Duty to Provide Information		*		*	*	*	*	
I.E.9	Inspection & Entry		*		*	*	*	*	
I.E.10	Monitoring & Records								
I.E.10.a			*		*	*	*	*	
I.E.10.b			*		*	*	*	*	
I.E.10.c			*		*	*	*	*	
I.E.10.d			*		*	*	*	*	
I.E.10.e			*		*	*	*	*	
I.E.11.	Reporting Planned Changes		*			*	*	*	
I.E.12.	Certification of Construction or Modification		*				*		

CATEGORIES ARE DEFINED AS FOLLOWS:

A. Leased Land

B. North Slope and ALE

C. Interim Status TSD Units

D. Areas Between TSDs (excluding A and B)

E. TSD Unit Closures (in Part V)

F. TSD Operating Units (in Part III)

G. TSD Units in Post Closure/Modified Closure (in Part VI)

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

1 - For Category B, Part I Conditions only apply if future TSD activities are begun on the North Slope or ALE.

2 - For Category C, all Part I Conditions apply to activities subject to Conditions II.U. and II.V.

3 - For Category D, Part I Conditions only apply to activities subject to Conditions II.A., II.C., II.D.4., II.G., II.I., II.L.3., II.O., II.Q., II.S., II.t., and II.X.

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CONDITION		CATEGORY							QUALIFIERS
PART	TITLE	A	B ¹	C ²	D ³	E	F	G	
I.E.13.	Anticipated Noncompliance		*		*	*	*	*	
I.E.14.	Transfer of Permits		*			*	*	*	
I.E.15.	Immediate Reporting								
I.E.15.a			*		*	*	*	*	
I.E.15.b			*		*	*	*	*	
I.E.15.c			*		*	*	*	*	
I.E.15.d			*		*	*	*	*	
I.E.15.e			*		*	*	*	*	
I.E.16	Written Reporting		*		*	*	*	*	
I.E.17	Manifest Discrepancy Report								
I.E.17.a			*			*	*	*	
I.E.17.b			*		*	*	*	*	
I.E.18.	Unmanifested Waste Report		*			*	*	*	
I.E.19.	Other Noncompliance		*		*	*	*	*	
I.E.20.	Other Information		*		*	*	*	*	

CATEGORIES ARE DEFINED AS FOLLOWS:

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

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

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

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CONDITION		CATEGORY							QUALIFIERS
PART	TITLE	A	B ¹	C ²	D ³	E	F	G	
I.E.21.	Reports, Notifications & Submissions		*		*	*	*	*	
I.E.22.	Annual Report		*		*	*	*	*	
I.F.	Signatory Requirement		*		*	*	*	*	
I.G.	Confidential Information		*		*	*	*	*	
I.H.	Documents To Be Maintained At Facility Site		*		*	*	*	*	

CATEGORIES ARE DEFINED AS FOLLOWS:

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

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

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

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PART II									
CONDITION		CATEGORY							QUALIFIERS
PART	TITLE	A	B	C	D	E	F	G	
II.A.	Facility Contingency Plan								
II.A.1.					*	*	*	*	For Category D, II.A. Conditions only apply to releases of hazardous substances which threaten human health or the environment.
II.A.2.					*	*	*	*	
II.A.3.					*	*	*	*	
II.A.4.					*	*		*	
II.A.5.					*	*	*	*	
II.B.	Preparedness & Prevention								
II.B.1.						*	*		
II.B.2.						*	*		
II.B.3.						*	*		
II.B.4.						*	*		
II.C.	Personnel Training								
II.C.1.						*	*	*	
II.C.2.					*	*	*	*	

CATEGORIES ARE DEFINED AS FOLLOWS:

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

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

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

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CONDITION		CATEGORY							QUALIFIERS
PART	TITLE	A	B	C	D	E	F	G	
II.C.3.						*	*	*	
II.C.4.					*	*	*	*	For Category D, Condition II.C.4. will not apply to unrestricted (publicly accessible) areas
II.D.	Waste Analysis								
II.D.1.						*	*	*	
II.D.2.						*	*	*	
II.D.3.						*	*	*	
II.D.4.					*				
II.E.	QA/QC								
II.E.1.						*	*	*	
II.E.2.						*	*	*	
II.E.3.						*	*	*	
II.E.4.						*	*	*	
II.E.5.						*	*	*	
II.F.	GW and Vadose Zone Monitoring					*	*	*	
II.F.1.	Purgewater Management					*	*	*	

CATEGORIES ARE DEFINED AS FOLLOWS:

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

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

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

HANFORD FACILITY WIDE PERMIT (REV. 4a)

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CONDITION		CATEGORY							QUALIFIERS
PART	TITLE	A	B	C	D	E	F	G	
II.F.2.	Well Remed. & Abandonment								
II.F.2.a						*	*	*	
II.F.2.b						*	*	*	
II.F.2.c						*	*	*	
II.F.2.d						*	*	*	
II.F.3	Well Construction					*	*	*	
II.G.	Siting Criteria				*		*		
								For Category D, Condition II.G. only applies if a new TSD unit is to be sited.	
II.H.	Record Keeping & Reporting								
II.H.1.	Cost Estimate for Facility Closure					*	*	*	
II.H.2.	Cost Est. for Postclosure Monitoring & Maintenance					*	*	*	
II.H.3.						*	*	*	
II.I.	Facility Operating Record								

CATEGORIES ARE DEFINED AS FOLLOWS:

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

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

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

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CONDITION		CATEGORY							QUALIFIERS
PART	TITLE	A	B	C	D	E	F	G	
II.I.1.		*	*		*	*	*	*	For Category D, II.I. Conditions only apply to activities subject to this Permit as defined by this matrix. For Category E, Condition applicability to be specified in Part V. Condition II.I. only applies to existing records and records prepared after the date of Permit issuance.
II.I.1.a		*	*		*	*	*	*	
II.I.1.b							*	*	
II.I.1.c					*	*	*	*	
II.I.1.d						*	*	*	
II.I.1.e			*		*				
II.I.1.f					*	*	*	*	
II.I.1.g						*	*	*	
II.I.1.h	Condition Reserved								
II.I.1.i						*	*	*	
II.I.1.j						*	*	*	

CATEGORIES ARE DEFINED AS FOLLOWS:

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

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

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HANFORD FACILITY WIDE PERMIT (REV. 4a)
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CONDITION		CATEGORY							QUALIFIERS
PART	TITLE	A	B	C	D	E	F	G	
II.I.1.k					*	*	*	*	
II.I.1.l	Condition Reserved								
II.I.1.m						*	*	*	
II.I.1.n					*	*	*	*	
II.I.1.o	Condition Reserved								
II.I.1.p			*		*	*	*	*	
II.I.1.q			*		*	*	*	*	
II.I.1.r					*	*	*	*	
II.I.1.s					*	*	*	*	
II.I.1.t					*	*	*	*	
II.I.2.		*	*		*	*	*	*	
II.J.	Facility Closure								
II.J.1.						*	*	*	
II.J.2.						*	*	*	
II.J.3.						*	*	*	
II.J.4.						*	*	*	

CATEGORIES ARE DEFINED AS FOLLOWS:

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

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

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- 3 - For Category D, Part I Conditions only apply to activities subject to Conditions II.A., II.C., II.D.4., II.G., II.I., II.L.3., II.O., II.Q., II.S., II.t., and II.X.

HANFORD FACILITY WIDE PERMIT (REV. 4a)

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CONDITION		CATEGORY							QUALIFIERS
PART	TITLE	A	B	C	D	E	F	G	
II.K.	Soil/GW Closure Performance Standards								
II.K.1.						*	*	*	
II.K.2.						*	*	*	
II.K.3.						*	*	*	
II.K.4.						*	*	*	
II.K.5.						*	*	*	
II.K.6.						*	*	*	
II.K.7.						*	*	*	
II.L.	Design & Operation of Facility								
II.L.1.	Proper Design & Construction					*	*	*	Condition II.L.2. only applies to Category E if it is a landfill closure.
II.L.2.	Design Changes, Nonconformance, & As-Built Drawings					*	*	*	Condition II.L.2 applies to Categories E & G only if it is a landfill closure.
II.L.3.	Facility Compliance				*	*	*	*	
II.M.	Security					*	*	*	
II.N.	Receipt of Dang. Wastes Generated Off-Site								

CATEGORIES ARE DEFINED AS FOLLOWS:

- A. Leased Land
- B. North Slope and ALE
- C. Interim Status TSD Units
- D. Areas Between TSDs (excluding A and B)

- E. TSD Unit Closures (in Part V)
- F. TSD Operating Units (in Part III)
- G. TSD Units in Post Closure/Modified Closure (in Part VI)

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

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- 3 - For Category D, Part I Conditions only apply to activities subject to Conditions II.A., II.C., II.D.4., II.G., II.I., II.L.3., II.O., II.Q., II.S., II.t., and II.X.

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Updated February 25, 1998

CONDITION		CATEGORY							QUALIFIERS
PART	TITLE	A	B	C	D	E	F	G	
II.N.1.	Receipt of Off-Site Waste						*		
II.N.2.	Waste From Sources Outside the U.S.						*		
II.N.3.	Notice to Generator						*		
II.O.	General Inspection Requirements								
II.O.1.					*				
II.O.2.					*				
II.O.3.					*				
II.P.	Manifest System								
II.P.1.						*	*	*	
II.P.2.						*	*	*	
II.Q.	On-Site Transportation								
II.Q.1.					*	*	*	*	
II.Q.2.					*	*	*	*	
II.R.	Equivalent Materials								
II.R.1.						*	*	*	
II.R.2.						*	*	*	

CATEGORIES ARE DEFINED AS FOLLOWS:

A. Leased Land

B. North Slope and ALE

C. Interim Status TSD Units

D. Areas Between TSDs (excluding A and B)

E. TSD Unit Closures (in Part V)

F. TSD Operating Units (in Part III)

G. TSD Units in Post Closure/Modified Closure (in Part VI)

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

1 - For Category B, Part I Conditions only apply if future TSD activities are begun on the North Slope or ALE.

2 - For Category C, all Part I Conditions apply to activities subject to Conditions II.U. and II.V.

3 - For Category D, Part I Conditions only apply to activities subject to Conditions II.A., II.C., II.D.4., II.G., II.I., II.L.3., II.O., II.Q., II.S., II.t., and II.X.

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CONDITION		CATEGORY							QUALIFIERS
PART	TITLE	A	B	C	D	E	F	G	
II.R.3.						*	*	*	
II.S.	Land Disposal Restrictions				*	*	*	*	
II.T.	Access & Information				*	*	*	*	
II.U.	Mapping of Underground Piping								
II.U.1.				*		*	*	*	
II.U.2.				*		*	*	*	
II.U.3.				*		*	*	*	
II.U.4.				*		*	*	*	
II.V.	Marking of Underground Piping			*		*	*	*	
II.W.	Other Permits and/or Approvals								
II.W.1.						*	*	*	
II.W.2.						*	*	*	
II.W.3.						*	*	*	
II.X.	Schedule Extensions								
II.X.1.				*	*	*	*	*	Condition II.X. only applies to Category C if activities are subject to Conditions II.U. and II.V.

CATEGORIES ARE DEFINED AS FOLLOWS:

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

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

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

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CONDITION		CATEGORY							QUALIFIERS
PART	TITLE	A	B	C	D	E	F	G	
II.X.2.				*	*	*	*	*	Condition II.X. only applies to Category D if activities are subject to this Permit as defined by this matrix.
PARTS III, IV, and V									
III.	Unit Specific Conditions for Final Status Operations								
III.1.A.	616 NRDWSF Compliance with Approved Permit Application						*		
III.1.B.	Amendments to the Approved Permit Application						*		
III.2.A.	305-B Compliance with Approved Permit Application						*		
III.2.B.	Amendments to the Approved Permit Application						*		
III.3.A	PUREX TUNNELS Compliance with Approved Permit Application						*		
III.3.B	Amendments to the Approved Permit Application						*		
III.4.A	Liquid Effluent Retention Facility and 200 Area Effluent Treatment Facility Compliance with Approved Permit Application						*		
III.4.B	Amendments to the Approved Permit Application						*		

CATEGORIES ARE DEFINED AS FOLLOWS:

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

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

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

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PERMIT APPLICABILITY MATRIX

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CONDITION		CATEGORY							QUALIFIERS
PART	TITLE	A	B	C	D	E	F	G	
III.5.A	242-A Evaporator Compliance with Approved Permit Application						*		
III.5.B	Amendments to the Approved Permit Application						*		
III.6.A	325 Hazardous Waste Treatment Units Compliance with Approved Permit Application						*		
III.6.B	Amendments to the Approved Permit Application						*		
IV.	Corrective Actions for Past Practice	*	*		*				
V.	Unit Specific Conditions for Units Undergoing Closure								
V.1.A.	183-H Basins Compliance with Approved Closure Plan					*			
V.1.B.	Amendments to the Approved Closure Plan					*			
V.10.A	105-DR Facility Compliance with Approved Closure Plan					*			
V.10.B	Amendments to the Approved Closure Plan					*			
V.12.A	4843 ALKALI Metal Storage Facility Compliance with Approved Closure Plan					*			

CATEGORIES ARE DEFINED AS FOLLOWS:

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

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

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- 2 – For Category C, all Part I Conditions apply to activities subject to Conditions II.U. and II.V.
- 3 – For Category D, Part I Conditions only apply to activities subject to Conditions II.A., II.C., II.D.4., II.G., II.I., II.L.3., II.O., II.Q., II.S., II.t., and II.X.

HANFORD FACILITY WIDE PERMIT (REV. 4a)
ATTACHMENT 3
PERMIT APPLICABILITY MATRIX
 Updated February 25, 1998

CONDITION		CATEGORY							QUALIFIERS
PART	TITLE	A	B	C	D	E	F	G	
V.12.B	Amendments to the Approved Closure Plan					*			
V.13.A	3718-F ALKALI Metal Treatment and Storage Facility Compliance with Approved Closure Plan					*			
V.13.B	Amendments to the Approved Closure Plan					*			
V.14.A	303-K Storage Facility Compliance with Approved Closure Plan					*			
V.14.B	Amendments to the Approved Closure Plan					*			
VI	Unit Specific Conditions for Units Undergoing Post Closure/Modified Closure								
VI.1.A	300 Area Process Trenches Compliance with Approved Closure Plan							*	
VI.1.B	Amendments to the Approved Closure Plan							*	
VI.2A	183-H Solar Evaporation Basin Compliance with Approved Modified Closure Plan							*	
VI.2.B	Amendments to the Approved Modified Closure Plan							*	

CATEGORIES ARE DEFINED AS FOLLOWS:

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

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

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- 3 - For Category D, Part I Conditions only apply to activities subject to Conditions II.A., II.C., II.D.4., II.G., II.I., II.L.3., II.O., II.Q., II.S., II.t., and II.X.