

0072353

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

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Nuclear Waste Program
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APR 06 2000

EDMC

12 Issued in accordance with the applicable provisions of the Hazardous Waste Management Act, Chapter
13 70.105 RCW, and the regulations promulgated thereunder in Chapter 173-303 WAC.

14 **ISSUED TO:**

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34 This Permit, as modified on March 28, 2000, is effective as of April 27, 2000, and shall remain in effect
35 through September 27, 2004, unless revoked and reissued under WAC 173-303-830(3), terminated under
36 WAC 173-303-830(5), or continued in accordance with WAC 173-303-806(7). The Internet address for
37 this Permit is <http://www.hanford.gov/docs/wa7890008967/index.htm>.

38

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

40 

Date: 3/28/00

42 Michael Wilson, Manager
43 Nuclear Waste Program, Department of Ecology

Enclosure 1

RCRA Permit, Revision 6

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LIST OF ATTACHMENTS

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2 The following listed documents are attached in their entirety. However, only those portions of the
3 attachments specified in Parts I through VI are enforceable conditions of this Permit and subject to the
4 permit modification requirements of Condition I.C.3. Changes to portions of the attachments, which are
5 not subject to the permit modification process, shall be addressed in accordance with Conditions I.E.8.,
6 I.E.11., I.E.13., I.E.15. through I.E.20., and I.E.22. Ecology has, as deemed necessary, modified specific
7 language in these attachments. These modifications are described in the Conditions (Parts I through VI),
8 and thereby supersede the language of the attachment.
- 9 Attachment 1 Hanford Federal Facility Agreement and Consent Order, (As Amended)
- 10 Attachment 2 Hanford Facility Legal Description, from Class ¹1 Modification dated
11 January 7, 1999
- 12 Attachment 3 Permit Applicability Matrix (As Revised on March 22, 2000)
- 13 Attachment 4 Hanford Emergency Response Plan, DOE/RL-94-02, release 13, July 1, 1998, as
14 amended and approved Modifications
- 15 Attachment 5 Purgewater Management Plan, July 1990
- 16 Attachment 6 Hanford Well Maintenance and Inspection Plan, BHI-01265, Revision 0, May
17 1999
- 18 Attachment 7 Policy on Remediation of Existing Wells and Acceptance Criteria for RCRA and
19 CERCLA, June 1990
- 20 Attachment 8 616 Nonradioactive Dangerous Waste Storage Facility Part A, Form 3, Revision 7,
21 March 4, 1997, and Part B Permit Application, DOE/RL-89-03, Revision 2,
22 October 1991, and approved Modifications
- 23 Attachment 9 616 Nonradioactive Dangerous Waste Shipping Lists
- 24 Attachment 11 183-H Solar Evaporation Basins Closure/Post-Closure Plan, DOE/RL-88-04,
25 Revision 3, June 1991 (Superseded by Attachment 37)
- 26 Attachment 12 Decommissioning Work Plan *Concrete Sampling - 183-H Solar Evaporation*
27 *Basins*, (DWP-H-080-00001, Revision A-3, August 1991)
- 28 Attachment 13 Decommissioning Work Plan *Core Drill Sampling - 183-H Solar Evaporation*
29 *Basins (Phase I)*, (DWP-H-080-00005, Revision A-1, February 1991)
- 30 Attachment 14 "183-H Solar Evaporation Basins Vadose Zone Sampling Plan", WHC-SD-EN-
31 AP-056, Revision 0, June 1991
- 32 Attachment 15 Decommissioning Work Plan *Berm Removal for 183-H Solar Evaporation Basins*
33 (DWP-H-026-00008, Revision A-0, January 1991)
- 34 Attachment 16 300 Area Solvent Evaporator Closure Plan, DOE/RL-88-08, Revision 3B,
35 September 1992 (**Clean Closed, July 31, 1995**)
- 36 Attachment 17 2727-S Nonradioactive Dangerous Waste Storage Facility Closure Plan, DOE/RL-
37 88-37, Revision 3, January 1992 (**Clean Closed, July 31, 1995**)
- 38 Attachment 18 305-B Storage Facility Part A, Form 3, Revision 1, September 25, 1990, and
39 Part B Permit Application, DOE/RL-90-01, Revision 2, October 1992, and
40 approved Modifications

1	Attachment 19	Simulated High-Level Waste Slurry TSD Closure Plan, DOE/RL-88-08, Revision 6A, November 1994 (Clean Closed, October 23, 1995)
2		
3	Attachment 20	218-E-8 Borrow Pit Demolition Site Closure Plan, DOE/RL-92-53, Revision 1, October 1994 (Clean Closed, November 28, 1995)
4		
5	Attachment 21	200 West Ash Pit Demolition Site Closure Plan, DOE/RL-92-54, Revision 1, September 1994 (Clean Closed, November 28, 1995)
6		
7	Attachment 22	2101-M Pond Closure Plan, DOE/RL-88-41, Revision 2A, July 1993 (Clean Closed, November 28, 1995)
8		
9	Attachment 23	216-B-3 Expansion Ponds Closure Plans, DOE/RL-89-28, Revision 2, October 1994 (Clean Closed, July 31, 1995)
10		
11	Attachment 24	Hanford Patrol Academy Demolition Sites Closure Plan, DOE/RL-92-39, Revision 1, December 1994 (Clean Closed, November 28, 1995)
12		
13	Attachment 25	105-DR Large Sodium Fire Facility Closure Plan, DOE/RL-90-25, Revision 2, March 1995 (Partial Closure Plan Completed October 1, 1996)
14		
15	Attachment 26	304 Concretion Facility Closure Plan, DOE/RL-90-03, Revision 2A, March 1995 (Clean Closed, January 21, 1996)
16		
17	Attachment 27	Permit Modification Schedule as revised on May 18, 1999
18	Attachment 28	PUREX Storage Tunnels Part A, Form 3, Revision 5, October 1996 and Part B, DOE/RL-90-24, Revision 4, April 1997, and approved Modifications
19		
20	Attachment 29	4843 Alkali Metal Storage Facility Closure Plan, DOE/RL-90-49, Revision 1, September 1995 (Clean Closed, April 14, 1997)
21		
22	Attachment 30	3718-F Alkali Metal Treatment and Storage Facility Closure Plan, DOE/RL-91-35, Revision 2, November 1995
23		
24	Attachment 31	300 Area Process Trenches Modified Closure Plan and Part A, Form 3, DOE/RL-93-73, Revision 4, May 1995 and approved Modifications
25		
26	Attachment 32	303-K Storage Facility Closure Plan, DOE/RL-90-04, Revision 2A, June 1995
27	Attachment 33	Hanford Facility Dangerous Waste Permit Application General Information Portion, DOE/RL-91-28, Revision 4, May 1998, and approved Modifications
28		
29	Attachment 34	Liquid Effluent Retention Facility, Part A, Form 3, Revision 5, October 1996 and 200 Area Effluent Treatment Facility Part A, Form 3, Revision 2, October 1996 and Liquid Effluent Retention Facility and 200 Area Effluent Treatment Facility, Part B Permit Application, DOE/RL-97-03, Revision 0, July 1997, and approved Modifications
30		
31		
32		
33		
34	Attachment 35	242-A Evaporator Part A, Form 3, Revision 7, October 1996, and Part B Permit Application, DOE/RL-90-42, Revision 1, July 1997, and approved Modifications
35		
36	Attachment 36	325 Hazardous Waste Treatment Units Part A, Form 3, Revision 4, June 1997, and Part B Permit Application, DOE/RL-92-35, Revision 1, July 1997, and approved Modifications
37		
38		
39	Attachment 37	183-H Solar Evaporation Basins Post-Closure Plan, DOE/RL-97-48, Revision 0, June 1997
40		
41	Attachment 38	303-K Storage Facility Sampling and Analysis Plan, HNF-SD-ENV-AP-005, Revision 0, July 14, 1997
42		

1	Attachment 39	Errata Sheet for the 303-K Storage Facility Sampling and Analysis Plan, August 1, 1997
2		
3	Attachment 40	100-D Ponds Part A, Form 3, Revision 4, June 1994; and Closure Plan, DOE/RL-92-71, Revision 2, March 1998
4		
5	Attachment 41	1325-N and 1301-N Part A, Form 3, Revision 7, February 1997; and DOE/RL-96-39, Revision 0, Appendix A
6		
7	Attachment 42	1324-N and 1324-NA Part A, Form 3, Revision 3, June 1994; and DOE/RL-96-39, Revision 0, Appendix B
8		
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10	Attachment 44	Reserved
11	Attachment 45	Reserved
12	Attachment 46	Reserved
13	Attachment 47	Corrective Measures Study for the 100-NR-1 and 100-NR-2 Operable Units, DOE/RL-95-11, Revision 0, July 1997
14		
15	Attachment 48	Engineering Evaluation/Cost Analysis for the 100-N Area Ancillary Facilities and Integration Plan, DOE/RL-97-22, Rev. 1, March 1998
16		
17	Attachment 49	Reserved

1
2 **INTRODUCTION**

3 Pursuant to Chapter 70.105 Revised Code of Washington (RCW), the Hazardous Waste Management Act
4 (HWMA) of 1976, as amended, Chapter 70.105D RCW, the Model Toxics Control Act (MTCA), and
5 regulations promulgated thereunder by the Washington State Department of Ecology (hereafter called
6 Ecology), codified in Chapter 173-303 Washington Administrative Code (WAC), Dangerous Waste
7 Regulations, a Dangerous Waste Permit is issued to the United States Department of Energy - Richland
8 Operations Office (USDOE-RL), [owner/operator], and its contractors, Fluor Daniel Hanford, Inc. (FDH)
9 [Co-operator], Pacific Northwest National Laboratory (PNNL) [Co-operator], CH2M HILL Hanford
10 Group, Inc. (CHG), and Bechtel Hanford, Incorporated (BHI) [Co-operator], hereafter called the
11 Permittees, for the treatment, storage, and disposal of dangerous waste at the Hanford Facility.

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

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

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

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

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

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

3 **Part I, Standard Conditions**, contains Conditions which are similar to those appearing in all dangerous
4 waste Permits.

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

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

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

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

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

1

2

DEFINITIONS

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

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

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

13 The following definitions apply throughout this Permit:

- 14 a. The term “**Area of Concern**” means any area of the Facility where a release of dangerous waste or
15 dangerous constituents has occurred, is occurring, is suspected to have occurred, or threatens to occur.
- 16 b. The term “**Contractor(s)**” means, unless specifically identified otherwise in this Permit, or
17 Attachments, Fluor Daniel Hanford, Inc. (FDH), Pacific Northwest National Laboratory (PNNL),
18 Bechtel Hanford, Inc. (BHI), and CH2M HILL Hanford Group, Inc. (CHG).
- 19 c. The term “**Critical Systems**,” as applied to determining whether a Permit Modification is required,
20 means those specific portions of a TSD unit’s structure, or equipment, whose failure could lead to the
21 release of dangerous waste into the environment, and/or systems which include processes which treat,
22 transfer, store, or dispose of regulated wastes. A list identifying the critical systems of a specific TSD
23 unit may be developed and included in Part III, V, and/or VI of this Permit. In developing a critical
24 system list, or in the absence of a critical system list, WAC 173-303-830 Modifications shall be
25 considered.
- 26 d. The term “**Dangerous Constituent**” means any constituent identified in WAC 173-303-9905 or 40
27 CFR Part 264 Appendix IX, any constituent which caused a waste to be listed or designated as
28 dangerous under Chapter 173-303 WAC, and any constituents within the meaning of hazardous
29 substance at RCW 70.105D.020(7).
- 30 e. The term “**Dangerous Waste**” means those solid wastes designated under Chapter 173-303 WAC as
31 dangerous or extremely hazardous waste. As used in the Permit, the phrase “dangerous waste” shall
32 refer to the full universe of wastes regulated by Chapter 70.105 RCW and Chapter 173-303 WAC
33 (including dangerous waste, hazardous waste, extremely hazardous waste, mixed waste, and acutely
34 hazardous waste).
- 35 f. The term “**Days**” means calendar days, unless specifically identified otherwise. Any submittal,
36 notification, or recordkeeping requirement that would be due, under the Conditions of this Permit, on a
37 Saturday, Sunday, or federal, or state holiday, shall be due on the following business day, unless
38 specifically stated otherwise in the Permit.
- 39 g. The term “**Director**” means the Director of the Washington State Department of Ecology, or a
40 designated representative. The Program Manager of the Nuclear Waste Program (with the address as
41 specified on page one [1] of this Permit) is a duly authorized and designated representative of the
42 Director for purposes of this Permit.
- 43 h. The term “**Ecology**” means the Washington State Department of Ecology (with the address as
44 specified on page one [1] of this Permit).

- 1 i. The term **“Facility”** means all contiguous land, structures, other appurtenances, and improvements on
2 the land used for recycling, reusing, reclaiming, transferring, storing, treating, or disposing of
3 dangerous waste. The legal and physical description of the Facility is set forth in Attachment 2 of this
4 Permit.
- 5 j. The term **“Facility”** for the purposes of corrective action under Condition II.Y, means all contiguous
6 property under the control of the Permittees and all property within the meaning of “facility” at RCW
7 70.105D.020(3) as set forth in Attachment 2 to this Permit.
- 8 k. The term **“FFACO”** means the Hanford Federal Facility Agreement and Consent Order, as amended
9 (Commonly referred to as Tri-Party Agreement [TPA]).
- 10 l. The term **“Permittees”** means the United States Department of Energy (owner/operator), Fluor Daniel
11 Hanford, Inc. (Co-operator), Bechtel Hanford, Inc. (Co-operator), CH2M HILL Hanford Group, Inc.
12 (Co-operator) and Pacific Northwest National Laboratory (Co-operator).
- 13 m. The term **“Permittees”** for purposes of corrective action under Condition II.Y means only the United
14 States Department of Energy (owner/operator).
- 15 n. The term **“Raw Data”** means the initial value of analog or digital instrument output, and/or manually
16 recorded values obtained from measurement tools or personal observation. These values are converted
17 into reportable data (e.g., concentration, percent moisture) via automated procedures and/or manual
18 calculations.
- 19 o. The term **“RCRA Permit”** means the Dangerous Waste Portion of the RCRA Permit for the
20 Treatment, Storage, and Disposal of Dangerous Waste (Dangerous Waste Permit) issued by the
21 Washington State Department of Ecology, pursuant to Chapter 70.105 RCW and Chapter 173-303
22 WAC, coupled with the HSWA Portion of the RCRA Permit for the Treatment, Storage, and Disposal
23 of Hazardous Waste (HSWA Permit) issued by EPA, Region 10, pursuant to 42 U.S.C. 6901 et seq.
24 and 40 CFR Parts 124 and 270.
- 25 p. The term **“Reasonable Times”** means normal business hours; hours during which production,
26 treatment, storage, construction, disposal, or discharge occurs, or times when Ecology suspects a
27 violation requiring immediate inspection.
- 28 q. The term **“Release”** means any intentional or unintentional spilling, leaking, pouring, emitting,
29 emptying, discharging, injecting, pumping, escaping, leaching, dumping, or disposing of dangerous
30 constituents into the environment and includes the abandonment or discarding of barrels, containers,
31 and other receptacles containing dangerous waste or dangerous constituents, and includes any releases
32 within the meaning of release at RCW 70.105D.020(20).
- 33 r. The term **“Significant Discrepancy”** in regard to a manifest or shipping paper, means a discrepancy
34 between the quantity or type of dangerous waste designated on the manifest, or shipping paper, and the
35 quantity or type of dangerous waste a TSD unit actually receives. A significant discrepancy in
36 quantity is a variation greater than ten (10) percent in weight for bulk quantities (e.g., tanker trucks,
37 railroad tank cars, etc.), or any variation in piece count for nonbulk quantities (i.e., any missing
38 container or package would be a significant discrepancy). A significant discrepancy in type is an
39 obvious physical or chemical difference which can be discovered by inspection or waste analysis (e.g.,
40 waste solvent substituted for waste acid).
- 41 s. The term **“Solid Waste Management Unit (SWMU)”** means any discernible location at the Facility
42 where solid wastes have been placed at any time, irrespective of whether the location was intended for
43 the management of solid or dangerous waste, and includes any area at the Facility at which solid
44 wastes have been routinely and systematically released (for example through spills), and includes
45 dangerous waste treatment, storage, and disposal units.
- 46 t. The term **“Unit” (or “TSD unit”)**, as used in Parts I through VI of this Permit, means the contiguous
47 area of land on or in which dangerous waste is placed, or the largest area in which there is a significant

1 likelihood of mixing dangerous waste constituents in the same area. A TSD unit, for purposes of this
2 Permit, is a subgroup of the Facility which has been identified in a Hanford Facility Dangerous Waste
3 Part A Permit Application Form 3.

ACRONYMS

1		
2	ALARA	As Low As Reasonably Achievable
3	AMSF	Alkali Metal Storage Facility
4	APDS	Ash Pit Demolition Site
5	ARAR	Applicable, Relevant, and Appropriate Requirements
6	APP	Used to Denote Appendix Page Numbers
7	APT	Area Process Trenches
8	BHI	Bechtel Hanford, Inc.
9	BPDS	Borrow Pit Demolition Site
10	CD/RR	Chemical Disposal/Recycle Request
11	CERCLA	Comprehensive Environmental Response Compensation and Liability Act
12		of 1980 (as Amended by the Superfund Reauthorization Act of 1986)
13	CFR	Code of Federal Regulations
14	CHG	CH2M HILL Hanford Group, Inc.
15	CIP	Construction Inspection Plan
16	CLARC	Cleanup Levels and Risk Calculations
17	CLP	Contract Laboratory Program
18	CPP	CERCLA Past Practice
19	COC	Chemical Contaminants of Concern
20	DOE-RL	U.S. Department of Energy, Richland Operations Office
21	DSC	Differential Scanning Colorimetry
22	DQO	Data Quality Objective
23	EC	Emergency Coordinator
24	Ecology	Washington State Department of Ecology
25	ECN	Engineering Change Notice
26	EPA	U.S. Environmental Protection Agency
27	ERA	Expedited Response Action
28	ERDF	Environmental Restoration and Disposal Facility
29	ETF	200 Area Effluent Treatment Facility
30	FDH	Fluor Daniel Hanford, Inc.
31	FFACO	Hanford Federal Facility Agreement and Consent Order
32	GW	Ground Water
33	HPADS	Hanford Patrol Academy Demolition Site
34	HSWA	Hazardous and Solid Waste Amendments of 1984
35	HWMA	Hazardous Waste Management Act

1	ID	Identification
2	IRM	Interim Remedial Measure
3	LDR	Land Disposal Restrictions
4	LERF	Liquid Effluent Retention Facility
5	LSFF	105-DR Large Sodium Fire Facility
6	MTCA	Model Toxics Control Act
7	NCR	Nonconformance Report
8	OSWER	Office of Solid Waste and Emergency Response
9	PNNL	Pacific Northwest National Laboratory
10	QA	Quality Assurance
11	QAPP	Quality Assurance Project Plan
12	QC	Quality Control
13	RCRA	Resource Conservation and Recovery Act of 1976
14	RCW	Revised Code of Washington
15	ROD	Records of Decision
16	RPD	Relative Percent Difference
17	RPP	RCRA Past Practice
18	SAP	Sampling and Analysis Plan
19	SARA	Superfund Amendments and Reauthorization Act of 1986
20	SCD	Security Control Devices
21	SHLWS	Simulated High Level Waste Slurry
22	SOP	Standard Operating Procedure
23	SWMU	Solid Waste Management Unit
24	TCLP	Toxicity Characteristic Leaching Procedure
25	TSD	Treatment, Storage, and/or Disposal
26	USDOE	U.S. Department of Energy
27	WAC	Washington Administrative Code
28	WAP	Waste Analysis Plan
29	183-H	183-H Solar Evaporation Basins
30	242-A	242-A Evaporator
31	300 APT	300 Area Process Trenches
32	300 ASE	300 Area Solar Evaporator
33	325 HWTUs	325 Hazardous Waste Treatment Units
34	303-K	303-K Storage Facility
35	305-B	305-B Storage Facility

I 616-NRDWSF

616 Nonradioactive Dangerous Waste Storage Facility

PART I - STANDARD CONDITIONS

I.A EFFECT OF PERMIT

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

TSD units operating or closing under interim status shall maintain interim status until that TSD unit is incorporated into Part III, V, and/or VI of this Permit, or until interim status is terminated under WAC 173-303-805(8). Interim status units shall be incorporated into this Permit through the Permit Modification process. (Refer to Attachment 27 for TSD unit incorporation).

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

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

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

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

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

I.A.4. Coordination With The FFAO

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

I.B PERSONAL AND PROPERTY RIGHTS

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

I.C PERMIT ACTIONS

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

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

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

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

8 **I.C.3 Modifications**

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

17 **I.D SEVERABILITY**

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

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

25 **I.D.2 Final Resolution**

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

33 **I.E DUTIES AND REQUIREMENTS**

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

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

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

42 Compliance with the terms of this Permit does not constitute a defense to any order issued or
43 any action brought under Section 3007, 3008, 3013, or 7003 of RCRA (42 U.S.C. Sections

1 6927, 6928, 6934, and 6973), Section 104, 106(a) or 107 of the Comprehensive
2 Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) [42 U.S.C.
3 Sections 9604, 9606(a), and 9607], as amended by the Superfund Amendments and
4 Reauthorization Act of 1986 (42 U.S.C. 9601 et seq.), or any other federal, state, or local law
5 governing protection of public health, or the environment; provided, however, that
6 compliance with this Permit during its term constitutes compliance at those areas subject to
7 this Permit for the purpose of enforcement with WAC 173-303-140, WAC 173-303-180,
8 WAC 173-303-280 through -395, WAC 173-303-600 through -680, WAC 173-303-810, and
9 WAC 173-303-830, except for Permit Modifications and those requirements not included in
10 the Permit that become effective by statute, or that are promulgated under 40 CFR Part 268
11 restricting the placement of dangerous waste in or on the land.

12 I.E.3 Duty to Reapply

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

16 I.E.4 Permit Expiration and Continuation

17 This Permit, and all Conditions herein, will remain in effect beyond the Permit's expiration
18 date until the effective date of the new Permit, if the Permittees have submitted a timely,
19 complete application for renewal per WAC 173-303-806 and, through no fault of the
20 Permittees, Ecology has not made a final Permit determination as set forth in WAC 173-303-
21 840.

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

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

26 I.E.6 Duty to Mitigate

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

30 I.E.7 Proper Operation and Maintenance

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

38 I.E.8 Duty to Provide Information

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

44 I.E.9 Inspection and Entry

- 1 The Permittees shall allow Ecology, or authorized representatives, upon the presentation of
2 Ecology credentials, to:
- 3 I.E.9.a During operating hours, and at all other reasonable times, enter and inspect the Facility or any
4 unit or area within the Facility, where regulated activities are located or conducted, or where
5 records must be kept under the Conditions of this Permit;
- 6 I.E.9.b Have access to, and copy, at reasonable times, any records that must be kept under the
7 Conditions of this Permit;
- 8 I.E.9.c Inspect at reasonable times any portion of the Facility, equipment (including monitoring and
9 control equipment), practices, or operations regulated or required under this Permit; and,
- 10 I.E.9.d Sample or monitor, at reasonable times, for the purposes of assuring Permit compliance, or as
11 otherwise authorized by state law, as amended, for substances or parameters at any location.
- 12 I.E.10 Monitoring and Records
- 13 I.E.10.a Samples and measurements taken by the Permittees for the purpose of monitoring required by
14 this Permit shall be representative of the monitored activity. Sampling methods shall be in
15 accordance with WAC 173-303-110 or 40 CFR 261, unless otherwise specified in this Permit,
16 or agreed to in writing by Ecology. Analytical methods shall be as specified in the most
17 recently published test procedure of the documents cited in WAC 173-303-110(3)(a) through
18 (d), unless otherwise specified in this Permit, or agreed to in writing by Ecology.
- 19 I.E.10.b The Permittees shall retain at the TSD unit(s), or other locations approved by Ecology, as
20 specified in Parts III, V, and/or VI of this Permit, records of monitoring information required
21 for compliance with this Permit, including calibration and maintenance records and all
22 original strip chart recordings for continuous monitoring instrumentation, copies of reports
23 and records required by this Permit, and records of data used to complete the application for
24 this Permit for a period of at least ten (10) years from the date of the sample, measurement,
25 report, or application, unless otherwise required for certain information by other Conditions
26 of this Permit. This information may be retained on electronic media.
- 27 I.E.10.c The Permittees shall retain at the Facility, or other approved location, records of all
28 monitoring and maintenance records, copies of all reports and records required by this Permit,
29 and records of all data used to complete the application for this Permit, which are not
30 associated with a particular TSD unit, for a period of at least ten (10) years from the date of
31 certification of completion of post-closure care, or corrective action for the Facility,
32 whichever is later. This information may be retained on electronic media.
- 33 I.E.10.d The record retention period may be extended by request of Ecology at any time by
34 notification, in writing, to the Permittees, and is automatically extended during the course of
35 any unresolved enforcement action regarding this Facility to ten (10) years beyond the
36 conclusion of the enforcement action.
- 37 I.E.10.e Records of monitoring information shall include:
- 38 i. The date, exact place and time of sampling or measurements;
- 39 ii. The individual who performed the sampling or measurements and their affiliation;
- 40 iii. The dates the analyses were performed;
- 41 iv. The individual(s) who performed the analyses and their affiliation;
- 42 v. The analytical techniques or methods used; and,
- 43 vi. The results of such analyses.

- 1 I.E.11 Reporting Planned Changes
2 The Permittees shall give notice to Ecology, as soon as possible, of any planned physical
3 alterations, or additions to the Facility subject to this Permit. Such notice does not authorize
4 any noncompliance with, or Modification of, this Permit.
- 5 I.E.12 Certification of Construction or Modification
6 The Permittees may not commence treatment, storage, or disposal of dangerous wastes in a
7 new or modified portion of TSD units subject to this Permit until:
8 i. The Permittees have submitted to Ecology, by certified mail, overnight express mail, or
9 hand delivery, a letter signed by the Permittees, and a registered professional engineer,
10 stating that the TSD unit has been constructed or modified in compliance with the
11 Conditions of this Permit; and,
12 ii. Ecology has inspected the modified or newly constructed TSD unit, and finds that it is in
13 compliance with the Conditions of this Permit; or
14 iii. Within fifteen (15) days of the date of receipt of the Permittees' letter, the Permittees have
15 not received notice from Ecology of its intent to inspect, prior inspection is waived, and
16 the Permittees may commence treatment, storage, and disposal of dangerous waste.
- 17 I.E.13 Anticipated Noncompliance
18 The Permittees shall give at least thirty (30) days advance notice to Ecology of any planned
19 changes in the Facility subject to this Permit, or planned activity which might result in
20 noncompliance with Permit requirements.
21 If thirty (30) days advance notice is not possible, then the Permittees shall give notice
22 immediately after the Permittees become aware of the anticipated noncompliance. Such
23 notice does not authorize any noncompliance with, or Modification of, this Permit.
- 24 I.E.14 Transfer of Permits
25 This Permit may be transferred to a new owner only if it is modified, or revoked and reissued,
26 pursuant to WAC 173-303-830(3)(b). The Permit may be transferred to a new Co-operator in
27 accordance with the provisions of WAC 173-303-830(2). Before transferring ownership or
28 operation of the Facility during its operating life, the Permittees shall notify the new owner or
29 Co-operator, in writing, of the requirements of WAC 173-303-600 and -806, and this Permit.
- 30 I.E.15 Immediate Reporting
31 I.E.15.a The Permittees shall verbally report to Ecology any release of dangerous waste or hazardous
32 substances, or any noncompliance with the Permit which may endanger human health or the
33 environment. Any such information shall be reported immediately after the Permittees
34 become aware of the circumstances.
35 I.E.15.b The immediate verbal report shall contain all the information needed to determine the nature
36 and extent of any threat to human health and the environment, including the following:
37 a. Name, address, and telephone number of the Permittee responsible for the release or
38 noncompliant activity;
39 b. Name, location, and telephone number of the unit at which the release occurred;
40 c. Date, time, and type of incident;
41 d. Name and quantity of material(s) involved;

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

1 accordance with WAC 173-303-390(1) to Ecology within fifteen (15) days of receipt of any
2 unmanifested dangerous waste shipment received from off-site sources.

3 **I.E.19 Other Noncompliance**

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

7 **I.E.20 Other Information**

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

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

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

17 Department of Ecology
18 1315 West Fourth Avenue
19 Kennewick, Washington 99336
20 Telephone: (509) 735-7581

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

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

28 **I.E.22 Annual Report**

29 The Permittees shall comply with the annual reporting requirements of WAC 173-303-
30 390(2)(a) through (e), and (g).

31 **I.F SIGNATORY REQUIREMENT**

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

36 **I.G CONFIDENTIAL INFORMATION**

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

39 **I.H DOCUMENTS TO BE MAINTAINED AT FACILITY SITE**

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

- 1 1. This Permit and all Attachments;
 - 2 2. All dangerous waste Part B Permit applications, post-closure Permit applications;
 - 3 and closure plans; and
 - 4 3. The Facility Operating Record.
- 5 These documents shall be maintained for ten (10) years after post-closure care or corrective
6 action for the Facility, whichever is later, has been completed and certified as complete.

II GENERAL FACILITY CONDITIONS

II.A FACILITY CONTINGENCY PLAN

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

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

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

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

II.B PREPAREDNESS AND PREVENTION

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

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

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

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

II.C PERSONNEL TRAINING

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

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

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

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

11 **II.D WASTE ANALYSIS**

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

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

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

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

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

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

23 **II.E QUALITY ASSURANCE/QUALITY CONTROL**

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

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

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

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

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

- 37 a. Sampling methods including the identification of sampling equipment, a description of
38 purging procedures, and a description of decontamination procedures to be used;
- 39 b. Criteria for selecting appropriate sampling locations, depths, etc., or identification and
40 justification of sample collection points and frequencies;

- 1 c. Criteria for providing a statistically sufficient number of samples as defined in EPA
2 guidance, or criteria for determining a technically sufficient number of measurements to
3 meet the needs of the project as determined through the Data Quality Objective (DQO)
4 planning process;
- 5 d. Methods for, or specification of, measuring all necessary ancillary data;
- 6 e. Criteria for, or specification of, determining conditions under which sampling should be
7 conducted;
- 8 f. Criteria for establishing, or specification of, which parameters are to be measured at each
9 sample collection point, and the frequency that each parameter is to be measured;
- 10 g. Criteria for, or specification of, identifying the type of sampling (e.g., composites vs.
11 grabs), and number of samples to be collected;
- 12 h. Criteria for, or specification of, measures to be taken to prevent contamination of the
13 sampling equipment and cross contamination between sampling points;
- 14 i. Methods and documentation of field sampling operations and procedure descriptions, as
15 appropriate, including:
- 16 (1) Documentation of procedures for preparation of reagents or supplies, which become
17 an integral part of the sample (e.g., filters and absorbing reagents);
- 18 (2) Procedure descriptions and forms for recording the exact location, sampling
19 conditions, sampling equipment, and visual condition of samples;
- 20 (3) Documentation of specific sample preservation method;
- 21 (4) Calibration of field devices;
- 22 (5) Collection of replicate samples;
- 23 (6) Submission of field-biased blanks, where appropriate;
- 24 (7) Potential interferences present at the facility;
- 25 (8) Field equipment listing and sample containers;
- 26 (9) Sampling order; and,
- 27 (10) Descriptions of decontamination procedures.
- 28 j. Selection of appropriate sample containers, as applicable;
- 29 k. Sample preservation methods, as applicable; and,
- 30 l. Chain-of-custody procedure descriptions as applicable, including:
- 31 (1) Standardized field tracking reporting forms to establish sample custody in the field
32 prior to, and during shipment; and,
- 33 (2) Pre-prepared sample labels containing all information necessary for effective sample
34 tracking, except where such information is generated in the field, in which case,
35 blank spaces shall be provided on the pre-prepared sampling label.
- 36 II.E.2.c Where applicable, a field measurements section which shall address:
- 37 a. Selecting appropriate field measurement locations, depths, etc.;
- 38 b. Providing a statistically sufficient number of field measurements as defined in EPA
39 guidance, or criteria for determining a technically sufficient number of measurements to
40 meet the needs of the project as determined through the DQO process;

- 1 c. Measuring all necessary ancillary data;
- 2 d. Determining conditions under which field measurements should be conducted;
- 3 e. Determining which media are to be addressed by appropriate field measurements (e.g.,
- 4 ground water, air, soil, sediment, etc.);
- 5 f. Determining which parameters are to be measured and where;
- 6 g. Selecting the frequency of field measurement and length of field measurement period;
- 7 and,
- 8 h. Documenting field measurement operations and procedures, including:
 - 9 (1) Descriptions of procedures and forms for recording raw data and the specific
 - 10 location, time, and sampling conditions;
 - 11 (2) Calibration of field devices;
 - 12 (3) Collection of replicate measurements;
 - 13 (4) Submission of field-biased blanks, where appropriate;
 - 14 (5) Potential interferences present at the facility;
 - 15 (6) Field equipment listing; and,
 - 16 (7) Descriptions of decontamination procedures.
- 17 II.E.2.d Where applicable, a Sample Analysis Section which shall specify the following:
 - 18 i. Chain-of-custody procedures, including:
 - 19 (1) Certification that all samples obtained for analysis will be delivered to a responsible
 - 20 person, at the recipient laboratory, who is authorized to sign for incoming field
 - 21 samples, obtain documents of shipment, and verify the data entered onto the sample
 - 22 custody records;
 - 23 (2) Provision for a laboratory sample custody log; and,
 - 24 (3) Specification of chain-of-custody procedures for sample handling, storage, and
 - 25 disbursement for analysis.
 - 26 ii. Sample storage procedure descriptions and storage times;
 - 27 iii. Sample preparation methods;
 - 28 iv. Descriptions of analytical procedures, including:
 - 29 (1) Scope and application of the procedure;
 - 30 (2) Sample matrix;
 - 31 (3) Potential interferences;
 - 32 (4) Precision and accuracy of the methodology; and,
 - 33 (5) Method detection limits.
 - 34 v. Descriptions of calibration procedures and frequency;
 - 35 vi. Data reduction, validation, and reporting;
 - 36 vii. Internal laboratory quality control checks, laboratory performance, and systems audits
 - 37 and frequency, including:
 - 38 (1) Method blank(s);

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

10 II.E.3 Each QA/QC plan shall include a Data Management Plan, or equivalent, to document and
11 track data and results. This plan shall identify and establish data documentation materials and
12 procedures, project or unit file requirements, and project-related progress reporting
13 procedures and documents. The storage location for the raw data shall be identified. The
14 plan shall also provide the format to be used to record and, for projects, present the validated
15 and invalidated data and conclusions. The Data Management Plan shall include the following
16 as applicable:

17 II.E.3.a A data record including the following:

- 18 a. Unique sample or field measurement code;
- 19 b. Sampling or field measurement location including surveyed horizontal coordinates and
20 elevation of the sample location, and sample or measurement type;
- 21 c. Sampling or field measurement raw data;
- 22 d. Laboratory analysis identification (ID) number;
- 23 e. Result of analysis (e.g., concentration);
- 24 f. Elevations of reference points for all ground water level measurements, including water
25 level elevation, top of casing elevation, and ground surface elevation; and,
- 26 g. Magnetic computer records of all ground water, soil, surface water, and sediment
27 analytical data.

28 Tabular displays, as appropriate, illustrating:

- 29 a. Unsorted validated and invalidated data;
- 30 b. Results for each medium and each constituent monitored;
- 31 c. Data reduction for statistical analysis;
- 32 d. Sorting of data by potential stratification factors (e.g., location, soil layer, topography);
33 and,
- 34 e. Summary data.

35 II.E.3.b Graphical displays (e.g., bar graphs, line graphs, area or plan maps, isopleth plots, cross-
36 sectional plots or transects, three dimensional graphs, etc.), as appropriate, presenting the
37 following:

- 38 a. Displays of sampling location and sampling grid;
- 39 b. Identification of boundaries of sampling area and areas where more data is required;

- 1 c. Displays of concentrations of contamination at each sampling location;
- 2 d. Displays of geographical extent of contamination;
- 3 e. Aerial and vertical displays of contamination concentrations, concentration averages, and
- 4 concentration maxima, including isoconcentration maps for contaminants found in
- 5 environmental media at the Facility;
- 6 f. Illustrations of changes in concentration in relation to distance from the source, time,
- 7 depth, or other parameters;
- 8 g. Identification of features affecting intramedia transport and identification of potential
- 9 receptors;
- 10 h. For each round of ground water level measurements, maps showing the distribution of
- 11 head measurements in each aquifer; and,
- 12 i. For each well, provide a hydrograph that shows the distribution of water level
- 13 measurements taken during the time interval of the investigation.

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

24 II.E.5 The level of QA/QC for the collection, preservation, transportation, and analysis of each
25 sample which is required for implementation of this Permit, may be based upon Ecology
26 approved DQO for the sample. These DQOs shall be approved by Ecology, in writing, or
27 through incorporation of unit plans and Permits into Parts III, V, and/or VI of this Permit.

28 II.F GROUND WATER AND VADOSE ZONE MONITORING

29 The Permittees shall comply with the ground water monitoring requirements of WAC 173-
30 303-645. This Condition shall apply only to those wells the Permittees use for the ground
31 water monitoring programs applicable to the TSD units incorporated into Parts III, V, and/or
32 VI of this Permit. Where releases from TSD units subject to this Permit have been
33 documented or confirmed by investigation, or where vadose zone monitoring is proposed for
34 integration with ground water monitoring, the Permittees shall evaluate the applicability of
35 vadose zone monitoring. The Permittees shall consult with Ecology regarding the
36 implementation of these requirements. If agreed to by Ecology, integration of ground water
37 and vadose zone monitoring, for reasons other than this Permit, may be accommodated by this
38 Permit. Results from other investigation activities shall be used whenever possible to
39 supplement and/or replace sampling required by this Permit.

40 II.F.1 Purgewater Management

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

43 II.F.2 Well Remediation and Abandonment

44 II.F.2.a The Permittees shall inspect the integrity of active resource protection wells as defined by

1 WAC 173-160-030, subject to this Permit, at least once every five (5) years. These
2 inspections shall be recorded in the Operating Record. The Permittees shall prepare and
3 maintain a plan and schedule by January 26, 1995, specifying the schedule and technical
4 standards for this program. The Permittees shall provide a copy of this plan upon the request
5 of Ecology.

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

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

16 II.F.2.d For wells subject to this Permit, the Permittees shall achieve full compliance with Chapter
17 173-160 WAC and Chapter 18.104 RCW consistent with a rolling five (5) year schedule
18 agreed to by Ecology and the Permittees. This process shall be completed by the year 2012.

19 II.F.3 Well Construction

20 All wells constructed pursuant to this Permit shall be constructed in compliance with Chapter
21 173-160 WAC.

22 II.G SITING CRITERIA

23 The Permittees shall comply with the applicable notice of intent and siting criteria of WAC
24 173-303-281 and WAC 173-303-282, respectively.

25 II.H RECORDKEEPING AND REPORTING

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

28 II.H.1 Cost Estimate for Facility Closure

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

33 II.H.2 Cost Estimate for Post-Closure Monitoring and Maintenance

34 The Permittees shall submit an annual report updating projections of anticipated costs for
35 post-closure monitoring and maintenance for TSD units incorporated into Parts III, V, and/or
36 VI of this Permit. This report will be submitted annually, by October 31, to Ecology and
37 reflect cost updates as of September 30, of the past Fiscal Year.

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

39 II.I FACILITY OPERATING RECORD

40 II.I.1 The Permittees shall maintain a written Facility Operating Record until ten (10) years after
41 post-closure, or corrective action is complete and certified for the Facility, whichever is later.
42 Except as specifically provided otherwise in this Permit, the Permittees shall also record all
43 information referenced in this Permit in the Facility Operating Record within seven (7)

- 1 working days after the information becomes available. A TSD unit-specific Operating Record
2 shall be maintained for each TSD unit at a location identified in Parts III, V, and VI of this
3 Permit. Each TSD unit-specific Operating Record shall be included by reference in the
4 Facility Operating Record. Information required in each TSD unit-specific Operating Record
5 is identified on a unit-by-unit basis in Part III, V, or VI of this Permit. The Facility Operating
6 Record shall include, but not be limited to, the following information:
- 7 II.I.1.a A description of the system(s) currently utilized to identify and map solid waste management
8 units and their locations. The description of the system(s) is required to include an
9 identification of on-site access to the system's data, and an on-site contact name and
10 telephone number. In addition to, or as part of, this system(s), the Permittees shall also
11 maintain a list identifying active ninety (90)-day waste storage areas, and dangerous waste
12 satellite accumulation areas and their locations. The list shall identify the location, the
13 predominant waste types managed at the area, and a date identifying when the list was
14 compiled. Maps shall be provided by the Permittees upon request by Ecology;
- 15 II.I.1.b Records and results of waste analyses required by WAC 173-303-300;
- 16 II.I.1.c An identification of the system(s) currently utilized to generate Occurrence Reports. The
17 identification of the system(s) is required to include a description, an identification of an on-
18 site location of hard-copy Occurrence Reports, an identification of on-site access to the
19 system's data, and an on-site contact name and telephone number;
- 20 II.I.1.d Copies of all unmanifested waste reports;
- 21 II.I.1.e The Hanford Emergency Response Plan, as well as summary reports, and details of all
22 incidents that require implementing the contingency plan, as specified in WAC 173-303-
23 360(2)(k);
- 24 II.I.1.f An identification of the system(s) currently utilized and being developed to record personnel
25 training records and to develop training plans. The identification of the system(s) is required
26 to include a description, an identification of on-site access to the system's data, and an on-site
27 contact name and telephone number;
- 28 II.I.1.g Preparedness and prevention arrangements made pursuant to WAC 173-303-340(4) and
29 documentation of refusal by state or local authorities that have declined to enter into
30 agreements in accordance with WAC 173-303-340(5);
- 31 II.I.1.h Reserved Condition;

- 1 II.I.1.i An identification and description of the report containing closure and post-closure cost
2 estimates required by Conditions II.H.1. and II.H.2. The identification shall provide the on-
3 site location and document number of the report;
- 4 II.I.1.j Documentation (e.g., waste profile sheets) of all dangerous waste transported to or from any
5 TSD unit subject to this Permit. This documentation shall be maintained in the receiving
6 unit's Operating Record from the time the waste is received;
- 7 II.I.1.k An identification of the system(s) currently utilized to cross-reference waste locations to
8 specific manifest document numbers. The identification of the system(s) is required to
9 include a thorough description, an identification of an on-site location of a hard-copy data
10 report, an identification of on-site access to the system's data, and an on-site contact name
11 and telephone number;
- 12 II.I.1.l Reserved Condition;
- 13 II.I.1.m Annual Reports required by this Permit;
- 14 II.I.1.n An identification of all systems currently utilized to record monitoring information, including
15 all calibration and maintenance records, and all original strip chart recordings for continuous
16 monitoring instrumentation. The identification of systems shall include a description of the
17 systems. The descriptions shall include a confirmation that the criteria of Condition I.E.10.e.
18 is provided by the utilization of the system. The identification of the systems shall also
19 include an identification of on-site access to the system's data, an on-site contact name and
20 telephone number;
- 21 II.I.1.o Reserved Condition;
- 22 II.I.1.p Summaries of all records of ground water corrective action required by WAC 173-303-645;
- 23 II.I.1.q An identification of the system(s) currently being utilized and being developed to evaluate
24 compliance with the Conditions of this Permit and with Chapter 173-303 WAC. The
25 identification of the system(s) shall include a description of the system(s), an identification of
26 on-site access to the system's data, and an on-site contact name and telephone number. The
27 description of the system(s) shall also include a definition of which portion(s) of the
28 system(s) is accessible to Ecology;
- 29 II.I.1.r All deed notifications required by this Permit (to be included by reference);
- 30 II.I.1.s All inspection reports required by this Permit; and
- 31 II.I.1.t All other reports as required by this Permit, including ECNs and NCRs.
- 32 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.,
33 II.I.1.i., II.I.1.k., II.I.1.n., and II.I.1.q., shall be placed in the Facility Operating Record, by
34 September 28, 1995.
- 35 **II.J FACILITY CLOSURE**
- 36 II.J.1 Final closure of the Hanford Facility will be achieved when closure activities for all TSD
37 units have been completed, as specified in Parts III, IV, V, or VI of this Permit. Completion
38 of these activities shall be documented using either certifications of closure, in accordance
39 with WAC 173-303-610(6), or certifications of completion of post-closure care, in accordance
40 with WAC 173-303-610(11).
- 41 II.J.2 The Permittees shall close all TSD units as specified in Parts III, V, and/or VI of this Permit.

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

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

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

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

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

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

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

15 II.K.1 For purposes of Condition II.K., the term “clean closure” shall mean the status of a TSD unit
16 at the Facility which has been closed to the cleanup levels prescribed by WAC 173-303-
17 610(2)(b), provided certification of such closure has been accepted by Ecology.

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

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

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

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

- 1 II.K.3.c For “modified closures,” the Permittees shall specify the particular activities required by this
2 Condition in a Post-Closure Permit application.
- 3 II.K.4 Any TSD unit for which Conditions II.K.1., II.K.2., or II.K.3., are not chosen as the closure
4 option, closing the TSD unit as a landfill may be selected. Closure and post-closure of the
5 TSD unit as a landfill, must follow the procedures and requirements specified in WAC 173-
6 303-610.
- 7 II.K.5 The cleanup option selected shall be specified in Parts III, V, and/or VI of this Permit, and
8 shall be chosen with consideration of the potential future site use for that TSD unit/area.
9 Definitions contained within Chapter 173-340 WAC shall apply to Condition II.K. Where
10 definitions are not otherwise provided by this Permit, the FFACO, or Chapter 173-303 WAC.
- 11 II.K.6 Deviations from a TSD unit closure plan required by unforeseen circumstances encountered
12 during closure activities, which do not impact the overall closure strategy, but provide
13 equivalent results, shall be documented in the TSD unit-specific Operating Record and made
14 available to Ecology upon request, or during the course of an inspection.
- 15 II.K.7 Where agreed to by Ecology, integration of other statutorily or regulatory mandated cleanups
16 may be accommodated by this Permit. Results from other cleanup investigation activities
17 shall be used whenever possible to supplement and/or replace TSD unit closure investigation
18 activities. All, or appropriate parts of, multipurpose cleanup and closure documents can be
19 incorporated into this Permit through the Permit Modification process. Cleanup and closures
20 conducted under any statutory authority, with oversight by either Ecology or the EPA, which
21 meet the equivalent of the technical requirements of Conditions II.K.1. through II.K.4., may
22 be considered as satisfying the requirements of this Permit.
- 23 **II.L DESIGN AND OPERATION OF THE FACILITY**
- 24 II.L.1 Proper Design and Construction
- 25 The Permittees shall design, construct, maintain, and operate the Facility to minimize the
26 possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous
27 substances to air, soil, ground water, or surface water, which could threaten human health, or
28 the environment.
- 29 II.L.2 Design Changes, Nonconformance, and As-Built Drawings
- 30 II.L.2.a The Permittees shall conduct all construction subject to this Permit in accordance with the
31 approved designs, plans and specifications that are required by this Permit, unless authorized
32 otherwise in Conditions II.L.2.b. or II.L.2.c. For purposes of Conditions II.L.2.b. and
33 II.L.2.c., an Ecology construction inspector, or TSD unit manager, are designated
34 representatives of Ecology.
- 35 II.L.2.b During construction of a project subject to this Permit, changes to the approved designs, plans
36 and specifications shall be formally documented with an Engineering Change Notice (ECN).
37 All ECNs shall be maintained in the TSD unit-specific Operating Record and shall be made
38 available to Ecology upon request or during the course of an inspection. The Permittees shall
39 provide copies of ECNs affecting any critical system to Ecology within five (5) working days
40 of initiating the ECN. Identification of critical systems shall be included by the Permittees in
41 each TSD unit-specific dangerous waste Permit application, closure plan or Permit
42 Modification, as appropriate. Ecology will review an ECN modifying a critical system, and
43 inform the Permittees in writing within two (2) working days, whether the proposed ECN,
44 when issued, will require a Class 1, 2, or 3 Permit Modification. If after two (2) working days
45 Ecology has not responded, it will be deemed as acceptance of the ECN by Ecology.

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

12 II.L.2.d Upon completion of a construction project subject to this Permit, the Permittees shall produce
13 as-built drawings of the project which incorporate the design and construction modifications
14 resulting from all project ECNs and NCRs, as well as modifications made pursuant to WAC
15 173-303-830. The Permittees shall place the drawings into the Operating Record within
16 twelve (12) months of completing construction, or within an alternate period of time specified
17 in a unit-specific Condition in Part III or V of this Permit.

18 II.L.3 Facility Compliance

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

22 **II.M SECURITY**

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

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

27 II.N.1 Receipt of Off-Site Waste

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

30 II.N.2 Waste From Sources Outside the United States

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

33 II.N.3 Notice to Generator

34 For waste received from off-site sources (except where the owner/operator is also the
35 generator), the Permittees shall inform the generator in writing that they have the appropriate
36 Permits for, and will accept, the waste the generator is shipping, as required by WAC 173-
37 303-290(3). The Permittees shall keep a copy of this written notice as part of the TSD unit-
38 specific Operating Record.

39 **II.O GENERAL INSPECTION REQUIREMENTS**

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

- 1 II.O.1.a The 100, 200 East, 200 West, 300, and 400 areas shall be inspected annually.
- 2 II.O.1.b The Permittees shall inspect the banks of the Columbia River, contained within the Facility
3 boundary, two (2) times yearly. One (1) inspection shall occur at the low water mark of the
4 year and one (1) inspection shall occur at a time chosen by the Permittees. These inspections
5 shall be performed from the river, by boat, and the inspectors shall follow the criteria in
6 Condition II.O.1.c.
- 7 II.O.1.c The Permittees shall visually inspect the areas identified in Conditions II.O.1.a. and II.O.1.b.
8 for malfunctions, deterioration, operator errors, and discharges which may cause or lead to the
9 release of dangerous waste constituents to the environment, or that threaten human health.
10 Specific items to be noted are as follows:
- 11 i. Remains of waste containers, labels, or other waste management equipment;
12 ii. Solid waste disposal sites not previously identified for remedial action;
13 iii. Uncontrolled waste containers (e.g., orphan drums);
14 iv. Temporary or permanent activities that could generate an uncontrolled waste form; and
15 v. Unpermitted waste discharges.
- 16 II.O.1.d The Permittees shall notify Ecology at least seven (7) days prior to conducting these
17 inspections in order to allow representatives of Ecology to be present during the inspections.
- 18 II.O.2 If the inspection by the Permittees, conducted pursuant to Condition II.O.1., reveals any
19 problems, the Permittees shall take remedial action on a schedule agreed to by Ecology.
- 20 II.O.3 The inspection of high radiation areas will be addressed on a case-by-case basis in either Part
21 III of this Permit, or prior to the inspections required in Condition II.O.1.
- 22 **II.P MANIFEST SYSTEM**
- 23 II.P.1 The Permittees shall comply with the manifest requirements of WAC 173-303-370 for waste
24 received from off-site and WAC 173-303-180 for waste shipped off-site.
- 25 II.P.2 Transportation of dangerous wastes along State Highways 240, 24, and 243, and Route 4
26 South (Stevens Drive) south of the Wye Barricade, if such routes are not closed to general
27 public access at the time of shipment, shall be manifested pursuant to Condition II.P.1.
- 28 **II.Q ON-SITE TRANSPORTATION**
- 29 II.Q.1 Documentation must accompany any on-site dangerous waste which is transported to or from
30 any TSD unit subject to this Permit, through or within the 600 Area, unless the roadway is
31 closed to general public access at the time of shipment. Waste transported by rail or by
32 pipeline is exempt from this Condition. This documentation shall include the following
33 information, unless other unit-specified provisions are designated in Part III or V of this
34 Permit:
- 35 II.Q.1.a Generator's name, location, and telephone number;
- 36 II.Q.1.b Receiving TSD unit's name, location, and telephone number;
- 37 II.Q.1.c Description of waste;
- 38 II.Q.1.d Number and type of containers;
- 39 II.Q.1.e Total quantity of waste;
- 40 II.Q.1.f Unit volume/weight;
- 41 II.Q.1.g Dangerous waste number(s); and

- 1 II.Q.1.h Any special handling instructions.
2 II.Q.2 All non-containerized solid, dangerous waste transported to or from TSD units, subject to this
3 Permit, shall be covered to minimize the potential for material to escape during transport.

4 **II.R EQUIVALENT MATERIALS**

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

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

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

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

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

22 **II.T ACCESS AND INFORMATION**

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

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

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

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

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

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

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

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

32 II.U.4 By September 28, 1998, the Permittees shall make an initial submittal, to Ecology, of maps
33 showing the location of dangerous waste underground pipelines (including active, inactive,
34 and abandoned pipelines, which contain or contained dangerous waste, subject to the
35 provisions of Chapter 173-303 WAC) within the 200 East, 200 West, 300, 400, 100N, and
36 100K Areas. These maps will incorporate information available six (6) months prior to the
37 scheduled submittal date. Thereafter, the maps will be updated on an annual basis to
38 incorporate additional information, as such information becomes available in accordance with
39 the FFACO milestone schedule. A schedule for the provision of map input shall be included
40 in the report specified in Condition II.U.1.

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

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

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

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

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

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

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

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

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

27 **II.X SCHEDULE EXTENSIONS**

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

37 Copies of all correspondence regarding schedule extensions shall be kept in the Operating
38 Record.

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

42 **II.Y CORRECTIVE ACTION**

43 In accordance with WAC 173-303-646 and WAC 173-303-815(2)(b)(ii), the Permittee must
44 conduct corrective action, as necessary to protect human health and the environment, for
45 releases of dangerous waste and dangerous constituents from solid waste management units

1 and areas of concern at the facility, including releases that have migrated beyond the facility
2 boundary. The Permittee may be required to implement measures within the facility to
3 address releases which have migrated beyond the facility's boundary.

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

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

10 II.Y.1.a. As necessary to select a cleanup action in accordance with WAC 173-340-360 and WAC 173-
11 340-350 State Remedial Investigation and Feasibility Study;

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

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

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

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

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

17 II.Y.1.g. WAC 173-340-700 through -760 Cleanup Standards.

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

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

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

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

38 ii. For any unit identified in Appendix C of the FFAOC as a CPP unit, in the case of an
39 interim ROD, a final decision about satisfaction of corrective action requirements will be
40 made in the context of issuance of a final ROD.

41 iii. If EPA and Ecology, after exhausting the dispute resolution process under Section XXVI
42 of the FFAOC, cannot agree on requirements related to investigation or cleanup of CPP
43 unit(s), Ecology will notify the Permittee, in writing, of the disagreement. Within sixty
44 (60) days of receipt of Ecology's notice, or within some other reasonable period of time

1 agreed to by Ecology and the Permittee, the Permittee must submit for Ecology review and
2 approval, a plan to conduct corrective action in accordance with Condition II.Y.1. for the
3 subject unit(s). The Permittee's plan may include a request that Ecology evaluate work
4 under another authority or program. Approved corrective action plans under this condition
5 will be incorporated into this Permit in accordance with the Permit Modification
6 Procedures of WAC 173-303-830.

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

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

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

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

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

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

- 1 II.Y.2.c. For each TSD unit or group of units, when the Permittee submits a certification of closure or
2 a certification of completion of post-closure care, or at an earlier time agreed to by Ecology
3 and the Permittee, the Permittee must, at the same time, either:
- 4 i. document that the activities completed under closure and/or post-closure satisfy the
5 requirements for corrective action; or
 - 6 ii. if the activities completed under closure and/or post-closure care do not satisfy corrective
7 action requirements, identify the remaining corrective action requirements and the
8 schedule under which they will be satisfied, if remaining corrective action requirements
9 will be satisfied by work developed and carried out under the FFACO provisions for RPP
10 units or CPP units, a reference to the appropriate RPP or CPP process and schedule will
11 suffice.
 - 12 iii. Ecology will make final decisions as to whether the work completed under closure and/or
13 post-closure care satisfies corrective action, specify any unit-specific corrective action
14 requirements, and incorporate the decision into this Permit in accordance with the Permit
15 Modification Procedures of WAC 173-303-830.
- 16 II.Y.2.d. Notwithstanding any other condition in this Permit, Ecology may directly exercise any
17 administrative or judicial remedy under the following circumstances:
- 18 i. Any discharge or release of dangerous waste, or dangerous constituents, which are not
19 addressed by the FFACO, as amended;
 - 20 ii. Discovery of new information regarding dangerous constituents or dangerous waste
21 management, including but not limited to, information about releases of dangerous waste
22 or dangerous constituents which are not addressed under the FFACO, as amended; or
 - 23 iii. A determination that action beyond the terms of the FFACO, as amended, is necessary to
24 abate an imminent and substantial endangerment to the public health, or welfare, or to the
25 environment.
- 26 II.Y.3. Releases of Dangerous Waste or Dangerous Constituents Not Covered By the FFACO
- 27 II.Y.3.a. US Ecology
- 28 i. The following solid waste management units are not covered by the FFACO:
 - 29 A. US Ecology, Inc., SWMU 1: Chemical Trench;
 - 30 B. US Ecology, Inc., SWMU 2-13: Low-level radioactive waste trenches 1 through 11A;
31 and
 - 32 C. US Ecology, Inc., SWMU 17: Underground resin tank.
 - 33 ii. Selected solid waste management units identified in Condition II.Y.3.a.i are currently
34 being investigated by US Ecology in accordance with the *Comprehensive Investigation US*
35 *Ecology – Hanford Operations Workplan*. Following completion of this investigation, or
36 within one (1) year of the effective date of this Permit Condition, whichever is earlier,
37 Ecology will make a tentative decision as to whether additional investigation or cleanup is
38 necessary to protect human health or the environment for the solid waste management
39 units identified in Condition II.Y.3.a.i, and publish that decision as a draft permit in
40 accordance with WAC 173-303-840(10). Following the associated public comment
41 period, and consideration of any public comments received during the public comment
42 period, Ecology will publish as final permit conditions under WAC 173-303-840(8) either:
 - 43 A. a decision that corrective action is not necessary to protect human health or the
44 environment;

- 1 B. an extension to the schedule established under III.Y.3.a.ii; or
- 2 C. a decision that corrective action is necessary to protect human health or the
- 3 environment.

4 iii. If Ecology decides under Condition II.Y.3.a.ii that corrective action is necessary to protect
5 human health or the environment, within one hundred and eighty (180) days of the
6 effective date of this decision, the Permittee must submit, for Ecology review and
7 approval, a plan to conduct corrective action in accordance with Condition II.Y.1.
8 Approved corrective action plans under this condition will be incorporated into this Permit
9 in accordance with the Permit Modification Procedures of WAC 173-303-830.

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

12 The Permittee must notify Ecology of all newly-identified solid waste management units and
13 all newly-identified areas of concern at the Facility. For purposes of this condition, a ‘newly-
14 identified’ solid waste management unit or a ‘newly-identified’ area of concern is a unit or
15 area not identified in the FFACO, as amended, on the effective date of this condition and not
16 identified by Condition II.Y.3.a. Notification to Ecology must be in writing and must
17 include, for each newly-identified unit or area, the information required by WAC 173-303-
18 806(4)(a)(xxiii) and WAC 173-303-806(4)(a)(xxiv). Notification to Ecology must occur at
19 least once every calendar year, no later than December 31, and must include all units and
20 areas newly identified since the last notification, except that if a newly identified unit or area
21 may present an imminent and substantial endangerment to human health or the environment,
22 notification must occur within five (5) days of identification of the unit or area. If
23 information required by WAC 173-303-806(4)(a)(xxiii) or WAC 173-303-806(4)(a)(xxiv) is
24 already included in the Waste Information Data System, it may be incorporated by reference
25 into the required notification.

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 dangerous
5 wastes that are shipped to off-site commercial treatment or disposal facilities. This Chapter sets forth the
6 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 Class
9 1 and Class 3 Modifications specified below. Enforceable portions of the application are listed
10 below; all subsections, figures, and tables included in these portions are also enforceable, unless
11 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, from
14 Class 1 Modification for quarter ending June 30, 1995, and March 31, 1998

15 Section 2.2 Topographic Maps

16 Section 2.5 Performance Standards, from Class 1 Modification for quarter ending June 30,
17 1998

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, 1995

21 Chapter 3.0 Waste Characteristics, from Class 1 Modification for quarter ending June 30,
22 1995, and March 31, 1998

23 Chapter 4.0 Process Information, from Class 1 Modification for quarter ending
24 June 30, 1995, and March 31, 1998

25 Chapter 6.0 Procedures to Prevent Hazards, from Class 3 Modification dated July 26, 1996,
26 and from Class 1 Modification for quarter ending March 31, 1998

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

29 Chapter 8.0 Personnel Training, from Class 1 Modification for quarter ending December 31,
30 1995

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

33 Chapter 12.0 Reporting and Recordkeeping, from Class 1 Modification for quarters ending
34 June 30, 1995, September 30, 1995, and March 31, 1998

35 Section 13.7 Toxic Substance Control Act of 1976

36 Section 13.8 Other Requirements

37 Appendix 2A Drawing H-13-000014, 616 NRDWSF Topographic Map, from Class 1
38 Modification for quarter ending June 30, 1995

- 1 Appendix 4B Drawing H-6-1553, Architectural Plan, Elevations and Sections, Rev. 4 and 2
2 ECNs from Class 1 Modification dated 7/98
- 3 Appendix 4B Drawing H-6-1556, Structural Plan and Sections, Rev. 4, and six ECNs from
4 Class 1 Modification dated 7/98
- 5 Appendix 7A Building Emergency Plan, HNF-IP-0263-616, dated July 1, 1998, as amended in
6 Class 2 Modification for Revision 5
- 7 Appendix 8A Training Plan, HNF-1276, Rev. 1, dated May 1998, as amended in Class 2
8 Modification for Revision 5
- 9 Appendix 11B Description of Procedures from Class 1 Modification for quarter ending June 30,
10 1995

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

- 12 III.1.B.a. Page 3-10, lines 11-17. Delete the first sentence of the paragraph and replace it with the following:
13 "To be acceptable at 616 NRDWSF, samples of nonradioactive waste streams must be documented
14 to have been sent to a laboratory for waste profiling when newly identified, or whenever the process
15 used, or raw materials usage changes, and at least annually thereafter, to ensure that the waste
16 designation assigned by the Solid Waste Engineering staff (Section 3.2), is accurate, and in
17 compliance with land ban restrictions."
- 18 III.1.B.b. Page 3-16, lines 29 and 30. The following line is added to the end of the paragraph: "The
19 laboratory verification results shall be obtained in accordance with WAC 173-303-110."
- 20 III.1.B.c. Page 2-16, lines 25 and 27. The address "7601 West Clearwater, Suite 102" shall be changed to
21 "1315 West Fourth Avenue" and the telephone number "509-546-2990" shall be changed to "509-
22 735-7581."
- 23 III.1.B.d. First Comment Package requested deletion
- 24 III.1.B.e. Table 7-1, Sections 3.1, 4.0 (first paragraph), 8.2, 8.3, 8.4, 11.0, and 12.0 are added as enforceable
25 portions of Appendix 7A.
- 26 III.1.B.f. Portions of DOE/RL-94-02 that are not made enforceable by inclusion in the applicability matrix for
27 that document, are not made enforceable by reference in this document.
- 28 III.1.B.g. (Deleted)
- 29 III.1.B.h. Appendix 7A, add "at 616 NRDWSF" to the titles of Sections 9.2, 9.4, and 9.5.
- 30 III.1.B.i. Before any waste is received at the unit, the Permittees will revise and submit to Ecology, Sections
31 9.2, 9.4, and 9.5 of Appendix 7A, to include emergency equipment needed to identify, measure,
32 monitor, and protect against possible toxic fume hazards described in Section 6.1.5. Upon approval
33 by Ecology, this information shall be incorporated into this Permit as a Class 1 Modification. If
34 necessary, Ecology will amend the requirements through a Class 2 or 3 Modification to the Permit.
- 35 III.1.B.j. Appendix 7A, Figure 1, revise title to read "616 Nonradioactive Dangerous Waste Storage Facility
36 Evacuation Routes."
- 37 III.1.B.k. Appendix 7A, Section 8.2. In the event of a WAC 173-303 emergency, the Owner/Operator must
38 notify Ecology, and appropriate local authorities, that the unit is in compliance with Sections 8.2
39 and 8.3 of Appendix 7A before operations are resumed in the affected areas.

- 1 III.1.B.l. The Permittee must review and immediately amend the emergency response documentation, if
2 necessary, whenever: (a) Applicable regulations, or the facility Permit, are revised, (b) The plan
3 fails in an emergency, (c) The unit changes (in its design, construction, operation, maintenance, or
4 other circumstances) in a way that materially increases the potential for fires, explosions, or releases
5 of dangerous waste constituents, or in a way that changes the response necessary in an emergency,
6 or (d) The list of emergency equipment changes.
- 7 III.1.B.m. In first comment package asked to be deleted.
- 8 III.1.B.n. The approved Waste Analysis Plan (WAP) is compliant for receipt of on-site waste and off-site
9 waste from USDOE owned and operated units (i.e., 712 Building and the Federal Building). The
10 Permittee is not to receive other off-site waste at this unit until the WAP has been revised to include
11 waste acceptance/verification criteria for the receipt of off-site waste.

1
2 **CHAPTER 2**

3 **305-B Storage Facility**

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

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

8 The Permittees shall comply with all the requirements set forth in Attachment 18, including all Class
9 1 Modifications specified below, and the Amendments specified in Condition III.2.B. Enforceable
10 portions of the application are listed below; all subsections, figures, and tables included in these
11 portions are also enforceable, unless stated otherwise:

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

14 Section 2.1.2 The 305-B Storage Unit, from Class 1 Modification for quarter ending March 31,
15 1998

16 Section 2.2.1 General Requirement

17 Section 2.5 Performance Standard, from Class 1 Modification for quarter ending March 31,
18 1998

19 Section 2.6 Buffer Monitoring Zones, from Class 1 Modification for quarter ending March
20 31, 1998

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

22 Chapter 3.0 Waste Characteristics, from Class 1 Modification for quarter ending March 31,
23 1998

24 Chapter 4.0 Process Information, from Class 1 Modification for quarter ending December 31,
25 1998

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

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

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

32 Chapter 8.0 Personnel Training, from Class 1 Modification for quarter ending September 30,
33 1998

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

36 Chapter 12.0 Reporting and Recordkeeping, from Class 1 Modification for quarter ending
37 June 30, 1997

38 Section 13.8 Toxic Substances Control Act, from Class 1 Modification for quarter ending
39 June 30, 1997

1 Section 13.9 Other Requirements, from Class I Modification for quarter ending June 30, 1997
2 Appendix 2A Hanford Site and 300-Area Topographic Maps, Plates 2-2 Through 2-9

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

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

7 III.2.B.b. Page 3-5, line 41. The following text is added: "The 305-B personnel shall collect from the
8 generating unit(s) the information pursuant to 40 CFR 268.7(a) regarding LDR wastes, the
9 appropriate treatment standards, whether the waste meets the treatment standards, and the
10 certification that the waste meets the treatment standards, if necessary, as well as any waste analysis
11 data that supports the generator's determinations. If this information is not supplied by the
12 generating unit, then the 305-B personnel shall be responsible for completion and transmittal of all
13 subsequent information regarding LDR wastes, pursuant to 40 CFR 268.7(b). All waste streams
14 must be re-characterized at least annually, or when generating unit and/or 305-B personnel have
15 reason to believe the waste stream has changed, to determine compliance with LDR requirements in
16 40 CFR 268."

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

CHAPTER 3
PUREX Storage Tunnels

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

III.3.A COMPLIANCE WITH APPROVED PERMIT APPLICATION

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

Part A, Form 3, Permit Application, Revision 5

Section 2.1	The PUREX Storage Tunnels Description
Section 2.2	Topographic Map, including Class 1 Modifications from quarter ending June 30, 1997
Chapter 3.0	Waste Analysis
Chapter 4.0	Process Information
Chapter 6.0	Procedures to Prevent Hazards
Chapter 7.0	Contingency Plan, dated May 1998, as amended in Class 2 Modification for Revision 5
Chapter 8.0	Personnel Training
Chapter 10.0	Waste Minimization
Chapter 11.0	Closure and Financial Assurance
Chapter 12.0	Reporting and Recordkeeping
Chapter 13.0	Other Federal and State Laws
Appendix 2A	Topographic Map
Appendix 3A	Waste Analysis Plan for PUREX Storage Tunnels
Appendix 4A	Engineering Drawings, including Class 1 Modifications from quarter ending December 31, 1998
Appendix 7A	Unit-Specific Contingency Plan for the 218-E-14 and 218-E-15 Storage Tunnels, dated May 1998, as amended in Class 2 Modification for Revision 5
Appendix 8A	Dangerous Waste Training Plan for the PUREX Facility

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

1 **CHAPTER 4**

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

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

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

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

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

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

12 Section 2.2 Topographic Map

13 Section 3.2 Waste Analysis Plan

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

16 Chapter 5.0 Ground Water Monitoring

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

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

21 Chapter 8.0 Personnel Training

22 Chapter 11.0 Closure and Financial Assurance

23 Chapter 12.0 Reporting and Recordkeeping

24 Chapter 13.0 Other Federal and State Laws

25 Appendix 2A Topographic Map

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

1 **CHAPTER 5**

2 **242-A Evaporator**

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

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

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

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

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

14 Section 3.2 Waste Analysis

15 Chapter 4.0 Process Information

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

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

20 Chapter 8.0 Personnel Training

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

23 Chapter 12.0 Reporting and Recordkeeping

24 Chapter 13.0 Other Federal and State Laws

25 Appendix 2A Topographic Map

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

28 Appendix 4A Engineering Drawings

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

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

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

34 **III.5.B. AMENDMENTS TO THE APPROVED PERMIT APPLICATION**

35 **III.5.B.a. Appendix 3A, Waste Analysis Plan (WAP) for 242-A Evaporator**

36 **III.5.B.a.1. Section 1.1 Purpose**

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

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

1 **CHAPTER 6**

2 **325 Hazardous Waste Treatment Units**

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

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

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

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

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

14 Chapter 3.0 Waste Characteristics

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

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

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

21 Chapter 8.0 Personnel Training

22 Chapter 11.0 Closure and Financial Assurance

23 Chapter 12.0 Reporting and Recordkeeping

24 Chapter 13.0 Other Relevant Laws

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

27 Appendix 4A Engineering Drawings

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

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

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

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

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

- 1 III.6.B.c. For all shipments of dangerous waste to or from the 325 HWTUs, the Permittees shall comply with
2 the applicable information in Conditions II.Q.1.h. and II.Q.2. of the Permit. For clarification, all
3 dangerous waste must be transported in accordance with the unit specific provisions as outlined in
4 the PNNL Operating Procedure for the 325 Building, in effect at the date of the transfer. With
5 exception to, and in addition to, the packaging and transporting operations, shall be as follows:
6
7 The acceptance of all dangerous waste received at the 325 TSD Units will be dependent upon their
8 packaging. Liquid waste containers accepted from other buildings to the 325 HWTUs shall have
9 secondary containment with absorbent materials packed around the contents.
- 10 III.6.B.d. The Permittee must conduct integrity assessments over the life of the two (2) tank systems in this
11 TSD unit, to ensure that the tanks retain structural integrity per WAC 173-303-640. Records must
12 be maintained in the Operating Record for this TSD unit. Within thirty (30) days of completion of
13 each assessment, data relating to each tank system shall be made available, upon request, to Ecology
14 for review.
- 15 III.6.B.e. Within three (3) months of final installation of the new tank, the Permittee shall submit to Ecology a
16 written integrity assessment, which has been reviewed and certified by an independent, qualified,
17 registered professional engineer, in accordance with WAC 173-303-810 (13)(a).
- 18 III.6.B.f. The TSD unit shall comply with all applicable Subpart AA and BB requirements of the Air
19 Emission Standards.
- 20 III.6.B.g. In response to the request in Chapter 11.0, Section 11.7, of Attachment 36, the Permittees are
21 granted two (2) years to close the TSD unit. This time period is necessitated by the high levels of
22 radioactivity in the materials that are present, particularly in the six (6) interconnected hot cells.
23 Removal of waste inventory from the TSD unit is an activity of closure.
- 24 III.6.B.h. All process knowledge and analytical data that are used for waste characterization, LDR
25 determination, and/or treatment activities at this TSD unit shall be documented and placed in the
26 Operating Record.
- 27 III.6.B.i. Shipments of waste shall not be accepted from any on-site generator without information required
28 by the 325 HWTUs WAP, accompanying the first shipment of any waste stream. The TSD unit staff
29 shall obtain, from the on-site generator, the information necessary to determine the waste code,
30 treatability group (i.e., wastewater versus non-wastewater), subcategory, and identification of
31 underlying hazardous constituents for certain characteristic waste. A member of the TSD unit staff
32 may sign the LDR certification as a representative of the generator.
- 33 III.6.B.j. Shipments of waste shall not be accepted from any off-site generator without LDR certification, if
34 applicable, accompanying each shipment. For waste received from off-site generators, the TSD unit
35 shall receive the information pursuant to 40 CFR 268 regarding LDR wastes. The generator must
36 sign the LDR certification.
- 37 III.6.B.k. The QA/QC control program for sampling and analysis related to this TSD unit must, at a minimum,
38 comply with the applicable Hanford Site standard requirements and regulatory requirements. All
39 analytical data shall be defensible and shall be traceable to specific, related quality control samples
40 and calibrations.
- 41 III.6.B.l. By April 28, 1998, the Permittees shall submit the following for review and approval by Ecology:
42 for each parameter, the respective accuracy, precision, and quantitation limit (or minimum
43 detectable activity) necessary to meet the regulatory or decision limit. These data quality
44 requirements shall be added to the WAP and become enforceable Conditions of the Permit. For
determining the toxicity characteristics, SW-846 Method 1311 should be followed wherever

1 possible. The Permittee may use the total metals test and assumption of complete extractability as
2 described in Method 1311. A reduced sample size may also be utilized for As Low As Reasonably
3 Achievable (ALARA) purposes as recommended by the "*Joint NRC/EPA Guidance on Testing*
4 *Requirements of Mixed Radioactive and Hazardous Waste*" (62 FR 62079).

5 III.6.B.m. For a given parameter, analytical methods are selected and may be modified as long as the
6 applicable precision, accuracy, and quantitation limit (or minimum detectable activity) necessary to
7 meet the regulatory or decision limit can be met or improved. (Note: the Permittee submission
8 described in Condition III.6.B.l. will define these data quality requirements for this TSD unit.)

9 III.6.B.n. Chapter 2.0, Page 2-5, line 41. Change Figure 2-3b, to read "Figure 2.3b."

10 III.6.B.o. Appendix 7A, Sections 3.2, 4.0, 5.0, and 6.0 are added as enforceable Sections.

11 III.6.B.p. First Comment Package requested this Condition be deleted

12 III.6.B.q. Chapter 6, at the end of the paragraph, add "by Ecology and shall follow WAC 173-303-360, where
13 applicable"

14 III.6.B.r. Portions of DOE/RL-94-02 that are not made enforceable by inclusion in the applicability matrix for
15 that document, are not made enforceable by reference in this document.

16

PART IV – UNIT SPECIFIC CONDITIONS FOR CORRECTIVE ACTION

CHAPTER 1

100-NR-1 Operable Unit

The 100-NR-1 Operable Unit (OU) includes solid waste management units and one-time spill sites which are undergoing corrective action. As prescribed by Conditions II.Y. of this Permit, this Chapter sets forth the corrective action requirements for the 100-NR-1 OU.

IV.1.A. COMPLIANCE WITH APPROVED CORRECTIVE MEASURES STUDY

The Permittees shall comply with all requirements set forth in Attachment 47, the Corrective Measures Study (CMS) for the 100-NR-1 Operable Units, DOE/RL-95-111, Revision 0. Enforceable portions of the CMS are listed below. All subsections, figures, and tables included in these portions are also enforceable, unless stated otherwise:

- Section 7.0 Comparative Analysis of Remedial Alternatives
- Section 9.0 Recommended Corrective Measures
- Section 9.1 RCRA Correction Action Performance Standards
- Section 9.2 Corrective Measures for the 100-NR-1 Operable Unit Source Sites
 - Section 9.2.1 Recommended Actions and Justifications
 - Section 9.2.2 Cleanup Standards for the 100-NR-1 Operable Unit
 - Section 9.2.3 Cost
 - Section 9.2.4 Schedule
 - Section 9.2.5 Training
- Appendix A Applicable or Relevant and Appropriate Requirements
- Appendix G Cost Estimates

IV.1.B. COMPLIANCE WITH APPROVED ENGINEERING EVALUATION/COST ANALYSIS

The Permittees shall comply with all requirements set forth in Attachment 48, the Engineering Evaluation/Cost Analysis for the 100-N Area Ancillary Facilities and Integration Plan (EE/CA), DOE/RL-97-22, Rev. 1. Enforceable portions of the EE/CA are listed below. All subsections, figures, and tables included in these portions are also enforceable, unless stated otherwise:

- Section 2.2.1.5 Remedial Unit Five – Description of the SWMU's
- Section 5.2 Compliance with ARARS
- Section 5.10 Other Considerations
- Section 6.0 Recommended Alternative
- Table 2-1 Suspected Contaminants in 100-N Area Ancillary Facilities
- Table 5-1 Summary of Estimated Costs for Alternatives Two, Three, and Four

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Appendix A Integration Plan for Decontamination and Demolition and Remedial Action in
the 100-N Area

CHAPTER 2

100-NR-2 Operable Unit

The 100-NR-2 Operable Unit (OU) is the ground water below 100-NR-1 OU, which has been contaminated as a result of past intentional disposal operations and unintentional spills of hazardous substances. As prescribed by Conditions II.Y. of this Permit, this Chapter sets forth the corrective action requirements for the 100-NR-2 OU.

IV.2.A COMPLIANCE WITH APPROVED CORRECTIVE MEASURES STUDY

The Permittees shall comply with all requirements set forth in Attachment 47, the Corrective Measures Study (CMS) for the 100-NR-2 Operable Units, DOE/RL-95-111, Revision 0. Enforceable portions of the CMS are listed below. All subsections, figures, and tables included in these portions are also enforceable, unless stated otherwise:

- Section 7.0 Comparative Analysis of Remedial Alternatives
- Section 9.0 Recommended Corrective Measures
 - Section 9.1 RCRA Correction Action Performance Standards
 - Section 9.3 Corrective Measure for the 100-NR-2 Operable Unit
 - Section 9.3.1 Recommended Action and Justification
 - Section 9.3.2 Cleanup Standards for the 100-NR-2 Operable Unit
 - Section 9.3.3 Cost
 - Section 9.3.4 Schedule
 - Section 9.3.5 Training
- Appendix A Applicable or Relevant and Appropriate Requirements
- Appendix G Cost Estimates

IV.2.B. COMPLIANCE WITH APPROVED ENGINEERING EVALUATION/COST ANALYSIS

The Permittees shall comply with all requirements set forth in Attachment 48, the Engineering Evaluation/Cost Analysis for the 100-N Area Ancillary Facilities and Integration Plan (EE/CA), DOE/RL-97-22, Rev. 1. Enforceable portions of the EE/CA are listed below. All subsections, figures, and tables included in these portions are also enforceable, unless stated otherwise:

- Section 2.2.1.5 Remedial Unit Five – Description of the SWMU's
- Section 5.2 Compliance with ARARS
 - Section 5.10 Other Considerations
- Section 6.0 Recommended Alternative
 - Table 2-1 Suspected Contaminants in 100-N Area Ancillary Facilities
 - Table 5-1 Summary of Estimated Costs for Alternatives Two, Three, and Four
- Appendix A Integration Plan for Decontamination and Demolition and Remedial Action in the 100-N Area

1 **CHAPTER 3**

2 **2727-S Nonradioactive Dangerous Waste Storage Facility**
3 **(Clean Closed, July 31, 1995)**

4 The 2727-S NRDWSF unit was operated as a storage unit for dangerous wastes. This Chapter sets forth the
5 closure requirements for this TSD unit.

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

1 **CHAPTER 4**

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

3 **(Clean Closed, October 23, 1995)**

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

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

1 **CHAPTER 5**

2 **218-E-8 Borrow Pit Demolition Site**
3 **(Clean Closed, November 28, 1995)**

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

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

1 **CHAPTER 6**

2 **200 West Area Ash Pit Demolition Site**
3 **(Clean Closed, November 28, 1995)**

4 The 200 West Area Ash Pit Demolition Site (200 APDS) unit was operated as an open burning/open detonation
5 unit for dangerous wastes. This Chapter sets forth the closure requirements for this TSD unit.

6 This unit has been Clean Closed on November 28, 1995, in accordance with the approved Closure Plan contained
7 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 sets forth
5 closure requirements for this TSD unit.

6 This unit has been Clean Closed on November 28, 1995, in accordance with the approved Closure Plan contained
7 in Attachment 22 of this Permit.

1 **CHAPTER 9**

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

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

CHAPTER 10

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

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The Large Sodium Fire Facility (LSFF) was a research laboratory used to conduct experiments for studying the behavior of alkali metals. This facility was also used for the treatment of alkali metal dangerous wastes. This unit completed the closure plan on October 1, 1996, in accordance with the approved Closure Plan contained in Attachment 25 of this Permit

1 **CHAPTER 11**

2 **304 Concretion Facility**
3 **(Clean Closed, January 21, 1996)**

4 The 304 Concretion Facility (304 Facility) was used for the treatment of dangerous wastes produced during the
5 fuel fabrication process. These wastes consist of beryllium/Zircalloy-2 chips and Zircalloy-2 chips and fines.

6 This Unit has been Clean Closed on January 21, 1996, in accordance with the approved Closure Plan contained in
7 Attachment 26 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 waste and
6 alkali metals.

7 This unit has been clean closed on April 14, 1997, in accordance with the approved closure plan contained in
8 attachment 29 of this Permit.

1
2 **CHAPTER 13**

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

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

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

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

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

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

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

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

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

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

37 **V.13.B.b.** Ecology shall be provided, for review and approval, a soil sampling and analysis plan at least thirty
38 (30) days prior to initiating actual sampling. Such a plan shall include a schedule for conducting

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

1 radioactive sodium according to *DOE-RL 1992a, 3718-F Alkali Metal Treatment and Storage*
2 *Facility Closure Plan, DOE-RL-91-35, Rev. 1*, U.S. Department of Energy, Richland Field Office,
3 Richland, Washington and the *300-FF-2 Operable Unit Technical Baseline Report, BHI-00012,*
4 *Rev. 00, Bechtel Hanford, Inc., Richland, Washington.*

1 **CHAPTER 14**

2 **303-K Storage Facility**

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

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

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

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

12 Section 2.1 Description of the 303-K Storage Facility

13 Section 2.2 Security

14 Chapter 4.0 Waste Characteristics

15 Chapter 6.0 Closure Strategy and Performance Standards

16 Chapter 7.0 Closure Activities

17 Chapter 8.0 Post-Closure

18 Appendix B Random Sampling Locations

19 Appendix E Personnel Training

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

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

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

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

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

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

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

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

1 **CHAPTER 15**

2 **100 D Ponds**

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

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

7 The Permittees shall comply with all requirements set forth in the 100 D Ponds Closure Plan (Plan),
8 found in Attachment 40, including the Amendments specified in Condition V.15.B. Enforceable
9 portions of the Plan are listed below: all subsections, figures, and tables included in these portions
10 are also enforceable, unless stated otherwise:

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

12 Section 2.3 Security Information

13 Section 5.0 Ground Water Monitoring

14 Section 6.0 Closure Strategy and Performance Standards

15 Section 7.0 Closure Activities

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

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

1 **CHAPTER 16**

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

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

6 V.16.A. COMPLIANCE WITH APPROVED MODIFIED CLOSURE PLAN

7 The Permittees shall comply with all requirements set forth in the 1325-N Closure Plan found in
8 Attachment 41 (DOE/RL-96-39, Rev. 0, Appendix A), including the Amendments specified in
9 Condition V.16.B. Enforceable portions of the Plan are listed below; all subsections, figures, and
10 tables included in these portions are also enforceable, unless stated otherwise:

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

12 Section A1.0 Introduction

13 Section A2.1 General Description of Unit

14 Section A3.0 Ground Water Monitoring

15 Section A4.0 Closure

16 Section A5.0 Post-closure Plan

17 V.16.B. AMENDMENTS TO THE APPROVED MODIFIED CLOSURE PLAN

18 V.16.B.a. (Reserved)

1 **CHAPTER 17**

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

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

6 V.17.A. COMPLIANCE WITH APPROVED MODIFIED CLOSURE PLAN

7 The Permittees shall comply with all requirements set forth in the 1301-N Closure Plan found in
8 Attachment 41 (DOE/RI-96-39, Rev. 0, Appendix A), including the Amendments specified in
9 Condition V.17.A. Enforceable portions of the Plan are listed below; all subsections, figures, and
10 tables included in these portions are also enforceable, unless stated otherwise:

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

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

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

18 V.17.B.a. (Reserved)

1 **CHAPTER 18**

2 **1324-N Surface Impoundment**

3 The 1324-N Surface Impoundment is an inactive TSD unit that is currently undergoing modified closure
4 activities. This TSD unit was operated as a percolation unit for dangerous wastes. This Chapter sets forth the
5 modified closure requirements for this TSD unit.

6 V.18.A. COMPLIANCE WITH APPROVED MODIFIED CLOSURE PLAN

7 The Permittees shall comply with all requirements set forth in the 1324-N Closure Plan found in
8 Attachment 42 (DOE/RI.-96-39, Rev. 0, Appendix B), including the Amendments specified in
9 Condition V.18.B. Enforceable portions of the Plan are listed below; all subsections, figures, and
10 tables included in these portions are also enforceable, unless stated otherwise:

11 Part A. Form 3, Permit Application, Revision 3, June 30, 1994

12 Section B1.0 Introduction

13 Section B2.1 General Description of Unit

14 Section B3.0 Ground Water Monitoring

15 Section B4.0 Closure

16 Section B5.0 Post-Closure Plan

17 V.18.B. AMENDMENTS TO THE APPROVED MODIFIED CLOSURE PLAN

18 V.18.B.a. (Reserved)

1 **CHAPTER 19**
2 **1324-NA Percolation Pond**
3

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

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

8 The Permittees shall comply with all requirements set forth in the 1324-NA Closure Plan found in
9 Attachment 42 (DOE/RL-96-39, Rev. 0, Appendix B), including the Amendments specified in
10 Condition V.19.B. Enforceable portions of the Plan are listed below; all subsections, figures, and
11 tables included in these portions are also enforceable, unless stated otherwise:

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

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

18 V.19.B. AMENDMENTS TO THE APPROVED MODIFIED CLOSURE PLAN

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

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 from fuel
5 fabrication laboratories in the 300 Area. This chapter sets forth the modified closure requirements.

6 VI.1.A. COMPLIANCE WITH APPROVED MODIFIED CLOSURE PLAN

7 The Permittees shall comply with all requirements set forth in Attachment 31, including all Class 1
8 Modifications specified below, and Amendments specified in Condition VI.1.B. Enforceable
9 portions of the plan are listed below. All subsections, figures, and tables included in these portions
10 are also enforceable, unless otherwise stated. The Permittees shall also comply with all the
11 requirements in the 300-FF-1 and 300-FF-5 Record of Decision and Addendum and the Ground
12 Water Monitoring Plan (WHC-SD-EN-AP-185, Rev. 0A). The 300 Area Process Trenches achieved
13 closure in May 1998 in accordance with the Closure Plan contained in Attachment 31, and Permit
14 Conditions contained in this Chapter. Therefore, enforceable portions of the plan currently consist
15 of those associated with post-closure care. These portions are Sections 8.2, 8.4, and 8.5.

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

17 Section ADD-1 Addendum, Introduction

18 Section 8.2. Inspection Plan, from Class 1 Modification for quarter ending September 30,
19 1998

20 Section 8.4. Maintenance Plan, from Class 1 Modification for quarter ending September 30,
21 1998

22 Section 8.5. Personnel Training, from Class 1 Modification for quarter ending September 30,
23 1998

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

25 VI.1.B.b. Pursuant to Condition II.K.7. of the Hanford Facility Wide Permit, the 300 Area Process Trenches
26 (APT) closure shall be a Modified Closure in coordination with the Record of Decision (ROD) for
27 300-FF-1 and 300-FF-5. Sections of CERCLA documents (examples may include, but are not
28 limited to, Remedial Design/Remedial Action CERCLA work plan, the Operation and Monitoring
29 Work Plan, etc.), which satisfy requirements and Conditions of this Modified Closure Plan, will be
30 reviewed and approved by Ecology.

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

34 VI.1.B.q. Page 8-3, line 20. Well condition will be assessed pursuant to Condition II.F. of the Permit.

35 VI.1.B.r Page 8-5, Section 8.5. This section will reference Section II.C. of the Permit for additional training
36 requirements.

1 **CHAPTER 2**

2 **183-H Solar Evaporation Basins**

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

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

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

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

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

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

34 VI.2.B. AMENDMENTS TO THE APPROVED POST-CLOSURE PLAN

- 1 VI.2.B.a The Permittee will review the modified closure option in five (5) years (February 28, 2003). The
2 purpose of the review will be to determine if this TSD can be clean closed.
- 3 VI.2B.b Ground Water Monitoring Plan for the 183-H Solar Evaporation Basins, PNNL-11573. The
4 Permittees shall comply with the above referenced document, which details the final status Ground
5 Water Monitoring Program for the 183-H Solar Evaporation Basins.
6

Enclosure 2

**Permit Applicability Matrix, Revision 6
(Attachment 3 to the Permit)**

(Attachment 3)

HANFORD FACILITY WIDE PERMIT APPLICABILITY MATRIX (REV. 6)

Updated: 03-28-00

PART I									
CONDITION		CATEGORY							QUALIFIERS
PART	TITLE	A	B	C	D	E	F	G	
IA	EFFECT OF PERMIT								
I.A.1.		*	*	*	*	*	*	*	
I.A.2.		*	*	*	*	*	*	*	
I.A.3.		*	*		*	*	*	*	
I.A.4.	Coordination with the FFAO		*		*	*	*	*	
IB	PERSONAL AND PROPERTY RIGHTS		*		*	*	*	*	
IC	PERMIT ACTIONS								
I.C.1.	Modification, Revocation, Reissuance, or Termination		*		*	*	*	*	
I.C.2.	Filing of a Request		*		*	*	*	*	
I.C.3.	Modifications		*		*	*	*	*	
ID	SEVERABILITY								
I.D.1.	Effect of Invalidation		*		*	*	*	*	
I.D.2.	Final Resolution		*		*	*	*	*	
IE	DUTIES AND REQUIREMENTS								
I.E.1.	Duty to Comply		*		*	*	*	*	
I.E.2.	Compliance Not Constituting Defense		*		*	*	*	*	
I.E.3.	Duty to Reapply		*		*	*	*	*	
I.E.4.	Permit Expiration & Continuation		*		*	*	*	*	
I.E.5.	Need to Halt or Reduce Activity Not a Defense		*		*	*	*	*	
I.E.6.	Duty to Mitigate		*		*	*	*	*	
I.E.7.	Proper Operation & Maintenance		*		*	*	*	*	
I.E.8.	Duty to Provide Information		*		*	*	*	*	
I.E.9.	Inspection & Entry		*		*	*	*	*	
I.E.9.a.			*		*	*	*	*	
I.E.9.b.			*		*	*	*	*	
I.E.9.c.			*		*	*	*	*	
I.E.9.d.			*		*	*	*	*	
I.E.10.	Monitoring & Records								
I.E.10.a.			*		*	*	*	*	

CATEGORIES ARE DEFINED AS FOLLOWS:

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

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

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

(Attachment 3)

HANFORD FACILITY WIDE PERMIT APPLICABILITY MATRIX (REV. 6)

PART I								
CONDITION		CATEGORY						QUALIFIERS
PART	TITLE	A	B	C	D	E	F	G
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		*				*	
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		*		*	*	*	*
I.E.21.	Reports, Notifications, & Submissions		*		*	*	*	*
I.E.22.	Annual Report		*		*	*	*	*
IF.	SIGNATORY REQUIREMENT		*		*	*	*	*
IG.	CONFIDENTIAL INFORMATION		*		*	*	*	*
IH.	DOCUMENTS TO BE MAINTAINED AT FACILITY SITE		*		*	*	*	*

CATEGORIES ARE DEFINED AS FOLLOWS:

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

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

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

(Attachment 3)

HANFORD FACILITY WIDE PERMIT APPLICABILITY MATRIX (REV. 6)

PART II									
CONDITION		CATEGORY							QUALIFIERS
PART	TITLE	A	B	C	D	E	F	G	
II.A.	FACILITY CONTINGENCY PLAN								
II.A.1.					*	*	*	*	For Category D, II.A. Conditions only apply to releases of hazardous substances that threaten human health or the environment.
II.A.2.					*	*	*	*	
II.A.3.					*	*	*	*	
II.A.4.					*	*		*	
II.B.	PREPAREDNESS AND								
II.B.1.						*	*		
II.B.2.						*	*		
II.B.3.						*	*		
II.B.4.						*	*		
II.C.	PERSONNEL TRAINING								
II.C.1.						*	*	*	
II.C.2.					*	*	*	*	
II.C.2.a.					*	*	*	*	
II.C.2.b.					*	*	*	*	
II.C.2.c.					*	*	*	*	
II.C.2.d.					*	*	*	*	
II.C.2.e.					*	*	*	*	
II.C.3.						*	*	*	

CATEGORIES ARE DEFINED AS FOLLOWS:

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

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

HANFORD FACILITY WIDE PERMIT APPLICABILITY MATRIX (REV. 6)

PART II									
CONDITION		CATEGORY							QUALIFIERS
PART	TITLE	A	B	C	D	E	F	G	
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.	QUALITY ASSURANCE/ QUALITY CONTROL								
II.E.1.						*	*	*	
II.E.2.						*	*	*	
II.E.2.a.						*	*	*	
II.E.2.b.						*	*	*	
II.E.2.c.						*	*	*	
II.E.2.d.						*	*	*	
II.E.3.						*	*	*	
II.E.3.a.						*	*	*	
II.E.3.b.						*	*	*	
II.E.4.						*	*	*	
II.E.5.						*	*	*	
II.F.	GROUND WATER AND VADOSE ZONE MONITORING					*	*	*	
II.F.1.	Purgewater Management					*	*	*	
II.F.2.	Well Remediation and Abandonment					*	*	*	

CATEGORIES ARE DEFINED AS FOLLOWS:

- | | |
|---|--|
| A. Leased Land | 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.

(Attachment 3)

HANFORD FACILITY WIDE PERMIT APPLICABILITY MATRIX (REV. 6)

PART II									
CONDITION		CATEGORY							QUALIFIERS
PART	TITLE	A	B	C	D	E	F	G	
II.F.2.a.						*	*	*	
II.F.2.b.						*	*	*	
II.F.2.c.						*	*	*	
II.F.2.d.						*	*	*	
II.F.3.	Well Construction					*	*	*	
II.G.	SITING CRITERIA				*		*		For Category D, Condition II.G. only applies if a new TSD unit is to be sited.
II.H.	RECORDKEEPING AND REPORTING								
II.H.1.	Cost Estimate for Facility Closure					*	*	*	
II.H.2.	Cost Estimate for Post-Closure Monitoring and Maintenance					*	*	*	
II.H.3.						*	*	*	
II.I.	FACILITY OPERATING RECORD								For Category D, II.I. Conditions only apply to activities subject to this Permit as defined by this matrix. For Category E, Condition applicability to be specified in Part V. Condition II.I. only applies to existing records and records prepared after the date of Permit issuance.
II.I.1.		*	*		*	*	*	*	
II.I.1.a.		*	*		*	*	*	*	
II.I.1.b.							*	*	
II.I.1.c.					*	*	*	*	

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.

(Attachment 3)

HANFORD FACILITY WIDE PERMIT APPLICABILITY MATRIX (REV. 6)

PART II									
CONDITION		CATEGORY							QUALIFIERS
PART	TITLE	A	B	C	D	E	F	G	
II.I.1.d.						*	*	*	
II.I.1.e.			*		*				
II.I.1.f.					*	*	*	*	
II.I.1.g.						*	*	*	
II.I.1.h.	Condition Reserved								
II.I.1.i.						*	*	*	
II.I.1.j.						*	*	*	
II.I.1.k.					*	*	*	*	
II.I.1.l.	Condition Reserved								
II.I.1.m.						*	*	*	
II.I.1.n.					*	*	*	*	
II.I.1.o.	Condition Reserved								
II.I.1.p.			*		*	*	*	*	
II.I.1.q.			*		*	*	*	*	
II.I.1.r.					*	*	*	*	
II.I.1.s.					*	*	*	*	
II.I.1.t.					*	*	*	*	
II.I.2.		*	*		*	*	*	*	
II.J.	FACILITY CLOSURE								
II.J.1.						*	*	*	
II.J.2.						*	*	*	
II.J.3.						*	*	*	
II.J.4.						*	*	*	
II.J.4.a.						*	*	*	

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.

HANFORD FACILITY WIDE PERMIT APPLICABILITY MATRIX (REV. 6)

PART II									
CONDITION		CATEGORY							QUALIFIERS
PART	TITLE	A	B	C	D	E	F	G	
II.J.4.b.						*	*	*	
II.J.4.c.						*	*	*	
II.J.4.d.						*	*	*	
II.K.	SOIL/GROUND WATER CLOSURE PERFORMANCE STANDARDS								
II.K.1.						*	*	*	
II.K.2.						*	*	*	
II.K.3.						*	*	*	
II.K.3.a.						*	*	*	
II.K.3.b.						*	*	*	
II.K.3.c.						*	*	*	
II.K.4.						*	*	*	
II.K.5.						*	*	*	
II.K.6.						*	*	*	
II.K.7.						*	*	*	
II.L.	DESIGN AND OPERATION OF FACILITY								
II.L.1.	Proper Design and Construction					*	*	*	
II.L.2.	Design Changes, Nonconformance and as-built Drawings					*	*	*	Condition II.L.2. applies to Categories E & G only if it is a landfill closure.
II.L.2.a.						*	*	*	
II.L.2.b.						*	*	*	
II.L.2.c.						*	*	*	

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.

(Attachment 3)

HANFORD FACILITY WIDE PERMIT APPLICABILITY MATRIX (REV. 6)

Page 8 of 14

PART II									
CONDITION		CATEGORY							QUALIFIERS
PART	TITLE	A	B	C	D	E	F	G	
II.L.2.d.						*	*	*	
II.L.3.	Facility Compliance				*	*	*	*	
II.M.	SECURITY					*	*	*	
II.N.	RECEIPT OF DANGEROUS WASTES GENERATED OFF-SITE								
II.N.1.	Receipt of Off-Site Waste						*		
II.N.2.	Waste From Sources Outside the U.S.						*		
II.N.3.	Notice to Generator						*		
II.O.	GENERAL INSPECTION REQUIREMENTS								
II.O.1.					*				
II.O.1.a.					*				
II.O.1.b.					*				
II.O.1.c.					*				
II.O.1.d.					*				
II.O.2.					*				
II.O.3.					*				
II.P.	MANIFEST SYSTEM								
II.P.1.						*	*	*	
II.P.2.						*	*	*	
II.Q.	ON-SITE TRANSPORTATION								
II.Q.1.					*	*	*	*	
II.Q.1.a.					*	*	*	*	

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.

(Attachment 3)

HANFORD FACILITY WIDE PERMIT APPLICABILITY MATRIX (REV. 6)

PART II									
CONDITION		CATEGORY							QUALIFIERS
PART	TITLE	A	B	C	D	E	F	G	
II.Q.1.b.					*	*	*	*	
II.Q.1.c.					*	*	*	*	
II.Q.1.d.					*	*	*	*	
II.Q.1.e.					*	*	*	*	
II.Q.1.f.					*	*	*	*	
II.Q.1.g.					*	*	*	*	
II.Q.1.h.					*	*	*	*	
II.Q.2.					*	*	*	*	
II.R.	EQUIVALENT MATERIALS								
II.R.1.						*	*	*	
II.R.2.						*	*	*	
II.R.3.						*	*	*	
II.S.	LAND DISPOSAL RESTRICTIONS				*	*	*	*	
II.T.	ACCESS AND INFORMATION				*	*	*	*	
II.U.	MAPPING OF UNDERGROUND PIPING								
II.U.1.				*		*	*	*	
II.U.2.				*		*	*	*	
II.U.3.				*		*	*	*	
II.U.4.				*		*	*	*	

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.

(Attachment 3)

HANFORD FACILITY WIDE PERMIT APPLICABILITY MATRIX (REV. 6)

PART II									
CONDITION		CATEGORY							QUALIFIERS
PART	TITLE	A	B	C	D	E	F	G	
II.V.	MARKING OF UNDERGROUND PIPING			*		*	*	*	
II.W.	OTHER PERMITS AND/OR APPROVALS								
II.W.1.						*	*	*	
II.W.2.						*	*	*	
II.W.3.						*	*	*	
II.X.	SCHEDULE EXTENSIONS								
II.X.1.				*	*	*	*	*	Condition II.X. only applies to Category C if activities are subject to Conditions II.U. and II.V.
II.X.2.				*	*	*	*	*	Condition II.X. only applies to Category D if activities are subject to this Permit as defined by this matrix.
II.Y.	CORRECTIVE ACTION	*	*	*	*	*	*	*	
II.Y.1.	Compliance with Chapter 173-340 WAC	*	*	*	*	*	*	*	
II.Y.1.a.		*	*	*	*	*	*	*	
II.Y.1.b.		*	*	*	*	*	*	*	
II.Y.1.c.		*	*	*	*	*	*	*	
II.Y.1.d.		*	*	*	*	*	*	*	
II.Y.1.e.		*	*	*	*	*	*	*	
II.Y.1.f.		*	*	*	*	*	*	*	
II.Y.1.g.		*	*	*	*	*	*	*	

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.

(Attachment 3)

HANFORD FACILITY WIDE PERMIT APPLICABILITY MATRIX (REV. 6)

PART II									
CONDITION		CATEGORY							QUALIFIERS
PART	TITLE	A	B	C	D	E	F	G	
II.Y.2.	Acceptance of Work Under Other Authorities or Programs and Integration with the FFACO	*	*	*	*	*	*	*	
II.Y.2.a.		*	*	*	*	*	*	*	
II.Y.2.b.		*	*	*	*	*	*	*	
II.Y.2.c.		*	*	*	*	*	*	*	
II.Y.2.d.		*	*	*	*	*	*	*	
II.Y.3.	Releases of Dangerous Waste or Dangerous Constituents Not Covered by the FFACO	*	*	*	*	*	*	*	
II.Y.3.a.	U.S. Ecology	*	*	*	*	*	*	*	
II.Y.3.b.	Newly Identified Solid Waste Management Units and Newly Identified Releases of Dangerous Waste or Dangerous Waste Constituents	*	*	*	*	*	*	*	

PART III									
CONDITION		CATEGORY							QUALIFIERS
PART	TITLE	A	B	C	D	E	F	G	
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						*		

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.

(Attachment 3)

HANFORD FACILITY WIDE PERMIT APPLICABILITY MATRIX (REV. 6)

PART III									
CONDITION		CATEGORY							QUALIFIERS
PART	TITLE	A	B	C	D	E	F	G	
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						*		
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						*		

PART IV									
CONDITION		CATEGORY							QUALIFIERS
PART	TITLE	A	B	C	D	E	F	G	
IV.	UNIT SPECIFIC CONDITIONS FOR CORRECTIVE ACTION	*	*	*	*	*	*	*	
IV.1.A.	100-NR-1 Operable Unit Compliance with Approved Corrective Measures Study				*	*			
IV.2.A.	100-NR-2 Operable Unit Compliance with Approved Corrective Measures Study				*	*			

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.

HANFORD FACILITY WIDE PERMIT APPLICABILITY MATRIX (REV. 6)

PART V									
CONDITION		CATEGORY							QUALIFIERS
PART	TITLE	A	B	C	D	E	F	G	
V	UNIT SPECIFIC CONDITIONS FOR UNITS UNDERGOING CLOSURE								
V.14.A.	303-K Storage Facility Compliance with Approved Closure Plan					*			
V.14.B.	Amendments to the Approved Closure Plan					*			
V.15.A.	100 D Ponds Compliance with Approved Closure Plan					*			
V.15.B.	Amendments to the Approved Closure Plan					*			
V.16.A.	1325-N Liquid Waste Disposal Compliance with Approved Modified Closure Plan					*			
V.16.B.	Amendments to the Approved Closure Plan					*			
V.17.A.	1301-N Liquid Waste Disposal Compliance with Approved Modified Closure Plan					*			
V.17.B.	Amendments to the Approved Closure Plan					*			
V.18.A.	1324-N Surface Impoundment Compliance with Approved Modified Closure Plan					*			
V.18.B.	Amendments to the Approved Closure Plan					*			
V.19.A.	1324-NA Percolation Pond Compliance with Approved Modified Closure Plan					*			
V.19.B.	Amendments to the 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.

HANFORD FACILITY WIDE PERMIT APPLICABILITY MATRIX (REV. 6)

PART VI									
CONDITION		CATEGORY							QUALIFIERS
PART	TITLE	A	B	C	D	E	F	G	
VI.	UNIT SPECIFIC CONDITIONS FOR UNITS IN POST-CLOSURE								
VI.1.A.	300 Area Process Trenches Compliance with Approved Modified Closure Plan							*	
VI.1.B.	Amendments to the Approved Modified Closure Plan							*	
VI.2.A.	183-H Solar Evaporation Basins Compliance with Approved Modified Closure Plan							*	
VI.2.B.	Amendments to the Approved Post-Closure Plan							*	

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- 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.

Enclosure 3

Corrective Action Responsiveness Summary

RESPONSIVENESS SUMMARY

CORRECTIVE ACTION MODIFICATION (Revision 6)

**Hanford Facility Resource Conservation and Recovery Act (RCRA) Permit
for the Treatment, Storage, and Disposal of Dangerous Waste (Permit) for Transferring Corrective Action
Conditions from the
Federal to the State Portion of the Permit**

March 2000

Introduction

This responsiveness summary is a result of written comments received by the Washington State Department of Ecology (referred to hereafter as Ecology or Department) on the proposed modifications to the Hanford Facility Dangerous Waste Portion of the RCRA Permit for the Treatment, Storage, and Disposal of Dangerous Waste Permit (Permit), for transferring corrective action conditions from the federal to the state portion of the Permit, dated October 13, 1999. These proposed modifications were available for public review and comment from October 18, 1999, to December 20, 1999. This Permit sets the conditions for the management of dangerous waste at the U.S. Department of Energy's (USDOE) Hanford facility. The following is a summary of the proposed changes:

Introduction

- Proposed language was added to reflect the transfer of corrective action conditions from the federal portion to the state portion of the Permit.

Definitions

- Proposed definitions related to corrective action were added.

Part II, General Facility Conditions

- Proposed corrective action conditions II.Y. were added.

Attachment 3, Permit Applicability Matrix

- Proposed corrective action conditions were added to Part II.

The unit-specific conditions for 100-NR-1 and 100-NR-2 operable units already existed in the federal portion of the Permit. No changes were proposed to these conditions, so they were not reopened for public comment. However, upon review of these conditions, Ecology discovered that the enforceable portions of the Corrective Measures Study and Engineer Evaluation/Cost Analysis documents were inaccurately referenced. The enforceable portions were not changed in any way (i.e., the enforceable portions had been accurately defined during the associated public comment period and agreement had been reached by all parties). However, during creation of the unit-specific chapters, the enforceable portions were inaccurately referenced. So, although the unit-specific chapters for 100-NR-1 and 100-NR-2 appear revised, they correctly reflect the enforceable portions that were presented to the public and agreed to by all parties.

In addition to the proposed modifications noted above, this modification also included the following:

Introduction

- Language was added to reflect the addition of CH2M HILL Hanford Group, Inc., as a contractor to USDOE and co-operator of the Permit.

Definitions

- Language was added to the definition of “Contractor(s)” to reflect the addition of CH2M HILL Hanford Group, Inc., as a contractor to USDOE.

Part II, General Facility Conditions

- Condition II.O.1.a. was revised to reflect the elimination of the 1100 Area from USDOE ownership.

Part III, Unit Specific Conditions for Final Status Operations

- Chapter 1 (616 Nonradioactive Dangerous Waste Storage Facility) was revised to reflect the deletion of Condition III.1.B.g. per Ecology’s June 2, 1999, letter to USDOE (Enclosure 4).
- Chapter 6 (325 Hazardous Waste Treatment Units) was revised to reflect the deletion of the 2-28-2000 closure date within Condition III.6.B.g., per Ecology’s June 10, 1999, letter to USDOE (Enclosure 5).

Part IV, Unit-Specific Conditions for Corrective Action

- As noted above, Chapter 1 (100-NR-1) and Chapter 2 (100-NR-2) were added. These chapters were revised to correct inaccuracies in the reference of enforceable portions of the approved Corrective Measures Study and Engineering Evaluation/Cost Analysis.

Part VI, Unit-Specific Conditions for Units in Post-Closure

- Chapter 1 (300 Area Process Trenches) was revised to reflect Class 1 and Class 1 changes that were erroneously omitted from Modification D of the Permit, per Ecology’s June 10, 1999, letter to USDOE (Enclosure 5).

Miscellaneous Changes

- Several minor changes were made throughout the Permit for grammar and consistency in presentation.
- The list of acronyms, list of attachments, and table of contents were updated.

This Responsiveness Summary is intended to address all the comments received and show how those comments were evaluated. Ecology received the following comments, and have responded to each in the following order:

- 5 comments were received from Alisa Huckaby on December 13, 1999
- 3 comments were received from US Ecology on December 17, 1999
- 1 comment was received from Bechtel Hanford, Inc., on December 21, 1999
- 1 comment was received from Fluor Daniel Hanford, Inc., on December 20, 1999
- 1 comment was received from Pacific Northwest National Laboratory on December 20, 1999
- 43 comments from USDOE were received on December 20, 1999

Some of the proposed changes that appeared in the public comment package for the corrective action modification included changes proposed for Modification E of the Permit. This is because the proposed Modification E changes were submitted to the public for comment prior to the proposed corrective action changes. As it happened, Ecology is prepared to issue the corrective action modification before Modification E. Consequently, USDOE’s Comment #39 regarding the Central Waste Complex and USDOE’s Comment #42 regarding the 2401-W Waste Storage Building will be addressed, as appropriate, in the Responsiveness Summary for Modification E.

This Responsiveness Summary will be made part of the Hanford Facility Administrative Record for future reference.

COMMENTER:

ALISA HUCKABY
1524 RIDGEVIEW COURT
RICHLAND, WASHINGTON 99352
TELEPHONE: 509/627-1162

- 1) Conditions II.Y.2.i., II.Y.2.ii., and II.Y.3.a.iv. make reference to “satisfying corrective action requirements” and “approved corrective action plans”. The Hanford Federal Facility Agreement and Consent Order (HFFACO) [also called the Tri-Party Agreement (TPA)] includes a comparison of the Resource Conservation and Recovery Act (RCRA) and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Corrective Action processes (see Figure 7-2 of HFFACO). The Action Plan of the HFFACO explains that cleanup of past-practice units will be conducted pursuant to either the CERCLA or RCRA process. As such, the Action Plan of the HFFACO equates major cleanup steps involved in both CERCLA and RCRA as what may be termed “functionally equivalent”. The TPA, at this time, does not include a functional equivalency for the Model Toxics Control Act (MTCA).

For clarity, implementability and enforceability, it is requested that the corrective action conditions include a comparison of RCRA, CERCLA, and MTCA corrective action processes. As MTCA is a “superfund-like” authority, the corrective action processes very likely mirror those for the CERCLA as included in the TPA. The identification or establishment of MTCA corrective action processes will allow the Tri-Parties to clearly understand MTCA requirements and expectations, as they will be applied to the Hanford Site.

Ecology Response: Ecology disagrees with the requested action as discussed below.

At this time, Ecology has no plans to directly apply MTCA at the Hanford Site (i.e., to issue a MTCA order to the USDOE or invite them to participate in a MTCA Consent Decree). We do not believe it is necessary to include the comparison in the Permit. We understand that the substantive MTCA requirements are critical ARARs for the CERCLA cleanups at Hanford and will be used to define what is necessary to protect human health and the environment for the RCRA/HWMA corrective action cleanups at Hanford. Therefore, we have attached a comparison of RCRA and MTCA to this responsiveness summary (see attachment 1). Figure 7-2 of the HFFACO gives a comparison of RCRA and CERCLA.

- 2) Condition II.Y.2 states “Ecology has already made decisions about some on-going work undertaken under other authorities and programs and accepts the work as satisfying corrective action requirements to the extent provided for in Conditions II.Y.2.i and II.Y.2.ii.”

The statement implies that an “equivalency determination” has been made regarding “some on-going work.” The Hanford Site has thousands of solid waste management units (SWMUs) of which all are currently at some stage of the corrective action process. Due to the number of SWMUs, clarification and enforceability of these corrective action conditions would be increased with an identification of which corrective action requirements have been satisfied for which CERCLA Past Practice (CPP) or RCRA Past Practice (RPP) units. Furthermore, the permit condition suggests an “equivalency determination” is to be made using the permit modification process of WAC 173-303-830. Considering the Focus Sheet explanation related to 100-NR-1 and 100-NR-2 operable units, it is unclear if RPP operable units will be subject to the regulatory-cited process. In other words, the permit condition is unclear as to how an “equivalency determination” of the other cleanup authorities or programs will be achieved. By clearly identifying the process, enforceability would be greatly improved.

Therefore, it is requested that clarification be provided regarding the method by which work performed under alternative authorities or program has been deemed “acceptable” and that an identification (by

SWMU name or number) of work deemed “acceptable” be either included in the corrective action conditions or as an attachment to the corrective action conditions.

Ecology Response: Ecology agrees to provide the requested clarification, below. Except as discussed below, we do not believe changes to the proposed permit conditions are necessary in this area.

The Commenter requests clarification of the method by which work under a non-RCRA/HWMA authority or program is found to be acceptable and that an identification, by unit, of work found to be acceptable be included in the Permit.

Currently, the non-RCRA/HWMA-lead work that Ecology believes has and/or will satisfy corrective action requirements has been developed and carried out as CERCLA-lead work under the FFACO, as amended. As part of developing and agreeing to the initial FFACO, and later in the Memorandum of Understanding between Ecology and EPA concerning the FFACO, Ecology agreed that, in general, CERCLA-lead cleanups conducted under the FFACO would automatically satisfy corrective action requirements (see, e.g., Article XXIII, paragraph 87, paragraph 88 and paragraph 89 of the FFACO). As discussed in the FFACO, as amended, the Memorandum of Understanding between Ecology and EPA concerning the FFACO, and numerous federal guidance documents, it is generally agreed that the RCRA corrective action and CERCLA cleanup programs have the same goal of protecting human health and the environment.

Of course, although we agreed that CERCLA-lead work, in general, would automatically satisfy RCRA/HWMA corrective action requirements, we did not by that agreement abrogate our responsibilities or authorities under RCRA/HWMA. Therefore, the FFACO (and the proposed permit conditions) provide that if Ecology and EPA, after exhausting the dispute resolution process established by the FFACO, cannot agree on a cleanup requirement or schedule for a CERCLA-lead unit, Ecology expressly reserves the right to independently take action under State authorities. In the proposed permit conditions, we amplified how we might exercise the right we expressly reserved in the FFACO. In the proposed permit conditions we established that, if Ecology and EPA, after exhausting the FFACO dispute resolution process, cannot reach agreement, Ecology would notify the Permittee, in writing, and the Permittee would be required to submit a written plan explaining how he-/she intended to go about satisfying corrective action requirements. This structure is maintained in the final permit conditions. To date, Ecology and EPA have yet to need to use the FFACO dispute resolution process.

In the future, Ecology might identify other non-RCRA/HWMA programs or authorities that might be used to satisfy corrective action requirements. For example, the Atomic Energy Act closure process, as administered by the Washington State Department of Health, might, in the future, be found appropriate to satisfy any corrective action requirements that might exist at the US Ecology site. Ecology will make these evaluations on a case-by-case basis and incorporate them into the Permit using the permit modification procedures, thereby ensuring public notice and an opportunity for public comment.

Regarding the 100-NR-1 and 100-NR-2 operable units, the 100-NR-1 and 100-NR-2 operable units were initially identified as RCRA Past Practice Units in the FFACO. The Tri-Parties agreed in milestones M-15-00 and M-16-00 to conduct the evaluation and selection of a cleanup action at 100-NR-1 and 100-NR-2 as a Pilot Project. The Pilot Project objective was to integrate CERCLA and RCRA at a single cleanup site. To that end, the Tri-Parties issued a CERCLA Proposed Plan and a RCRA Corrective Measures Study covering the 100-NR-1 and 100-NR-2 operable units in February 1998. In addition to satisfying the requirements for evaluation and selection of a remedial alternative under CERCLA, the proposed plan also contained the corrective action conditions and performance standards to be achieved under the preferred alternative. Specifically, the USDOE committed to achieving performance standards found at WAC 173-303-646(2) which require the remedial alternative achieve protection of human health and the environment for all releases of dangerous wastes and dangerous constituents, including releases from all solid waste management units at the Facility. The RCRA performance standards are to be achieved under the selected CERCLA remedial action of remove, treat, and dispose. Further, specific conditions

applicable to remediation efforts at 100-NR-1 and 100-NR-2 were included in the proposed plan for public comment. These conditions were subsequently added to the RCRA Sitewide Permit as unit-specific requirements for corrective action. Once cleanup of 100-NR-1 and 100-NR-2 is achieved, Ecology will evaluate the effectiveness of the action under both CERCLA and RCRA Corrective Action authorities. A determination as to the status of the operable units will be made at that time.

Finally, we recognize from these and other comments that the language of the proposed permit conditions, especially the text discussing a "case-by-case" evaluation by Ecology, may have been confusing. To remedy this confusion, we have compressed proposed Conditions II.Y.2 and II.Y.3 into final permit Condition II.Y.2. This compression, while not changing the substance of the permit requirements, has resulted in removal of much of the language that appeared to be confusing.

- 3) Conditions II.Y.3.a and II.Y.3.b reference Appendix C of the HFFACO and establish provisions for satisfying corrective action requirements for all units identified. At the end of Appendix C is a listing of ten groundwater operable units. Typically, neither RCRA nor MTCA separate groundwater from the source unit when selecting a remedy for the source unit or SWMU. At Hanford, and associated with the CERCA process in particular, remedies are commonly selected for groundwater and solid waste management units separately. For RCRA and MTCA application, groundwater considerations are an inherent component of the remedy selection process.

For clarity, implementability and enforceability, it is requested that an additional corrective action condition be developed to require groundwater considerations (e.g., establishment/development of soil cleanup values, establishment of institutional controls associated with groundwater monitoring of "land-based" units, etc.) be addressed during the corrective action permitting process. More importantly, it is requested that for land-based SWMUs, groundwater considerations be required on an SWMU-by-SWMU basis during the remedy selection process.

Ecology Response: Ecology disagrees with the requested action as discussed below.

The Commenter requests that we add permit conditions to explicitly require that ground water be addressed when corrective actions are incorporated into the Permit and to specifically require that, for land-based solid waste management units, *ground water be considered on a unit-by-unit basis during remedy selection.*

First, we are not aware of state or federal guidance that indicates that the RCRA program forbids project managers from taking an approach to ground water similar to the approach CERCLA project managers sometimes take, that is, to deal with soil as one remedial action and to address ground water as a separate remedial action. In some cases, for example, a large ground water plume that was potentially contributed to by many surface sources, *separating media into different, but related, cleanup actions may be the most efficient way to manage a cleanup, and we would like to continue to provide project managers with this valuable flexibility.* Of course, when this is done, the substantive standards of MTCA (which apply as ARARs during CERCLA actions and which Ecology also applies to corrective actions) require that *cleanup levels for soil are, among other things, protective of ground water.*

For RCRA-lead units, including treatment, storage and disposal units, under the FFAO, Ecology is the final decision-maker during remedy selection and/or closure and will continue to apply the substantive standards of MTCA to our decisions. For CERCLA-lead units under the FFAO, if Ecology does not agree with an EPA decision, Ecology can invoke the FFAO dispute resolution process. Failing to reach agreement using that process, Ecology, acting under the Permit, can take independent action to ensure protection of human health or the environment for the disputed unit, area or issue.

- 4) Recommended wording for Condition II.Y.4.b is “. . .unit or significant release or measurement or indication of significant release. . . “.

Ecology Response: Ecology agrees with the requested action and has clarified the wording of proposed Condition II.Y.4.b as discussed below (see final Condition II.Y.3.b.). We do not agree with the Commenter’s suggested language, as discussed below.

Rather than clarify by continuing to refine or modify the term “significant release” we have chosen to use the term “area of concern.” The term “area of concern” is defined as “any area of the Facility where a release of dangerous waste or dangerous constituents has occurred, is occurring, is suspected to have occurred, or threatens to occur.” We believe this definition encompasses the Commenter’s suggestion to include not just confirmed releases but also areas where we have some indication, or suspicion, of releases, but do not yet have confirmatory information. See final Condition II.Y.3.b.

- 5) The draft corrective action permit conditions do not appear to address permit modifications that may result from periodic site reviews. The corrective action programs for several CPP and RPP Hanford Site Operable Units have been implemented for years and are soon approaching “5 year reviews”.

As is evidenced by the recent 100 Area Cleanup Workshop, hosted by Ecology, all applicable MTCA requirements have not been addressed by past remedy selections (or by 100 Area Interim Records of Decisions [RODs]). If the omissions, errors, oversights, etc., are identified during periodic reviews, provisions for modifying the applicable permit(s)/RODs should be included in the corrective action permit conditions.

Ecology Response: Ecology disagrees as discussed below.

Changes that might result from “five-year reviews” are adequately provided for by the proposed permit conditions that govern acceptance or work developed and carried out under the FFACO. If after or during a five-year review EPA and Ecology could not agree on an appropriate action (e.g., if Ecology was convinced that a remedy should be improved by additional elements in order to remain protective of human health and the environment while EPA was convinced that a remedy would remain protective without any changes), Ecology or EPA could invoke the dispute resolution process of the FFACO, as amended. If Ecology and EPA could not reach agreement during the FFACO dispute resolution process, Ecology would then notify the Permittee, in writing, and the Permittee would be required to submit a plan outlining how he/she would fulfill corrective action requirements relative to the disputed unit, area or issue.

COMMENTER:

US ECOLOGY
AMERICAN ECOLOGY RECYCLE CENTER, INC.
109 FLINT ROAD
OAK RIDGE, TENNESSEE 37830
NUCLEAR EQUIPMENT SERVICE CENTER
TELEPHONE: 423/482-553
FACSIMILE: 423/220-5365

1. US Ecology supports the proposed transfer of corrective action authority from U.S. EPA to WDOE. The action, as we understand it, would allow WDOE to assume sole authority to implement corrective action and other permit provisions pertaining to the US Ecology facility. (See Section II.Y.4a). The company believes

single agency regulation of RCRA matters is both timely and appropriate, and that the state is the level of government best equipped to undertake these regulatory duties.

Ecology Response: Ecology acknowledges and appreciates your comment. Please refer to Ecology's responses to comments in this Responsiveness Summary for clarification and/or changes to the proposed corrective action conditions, e.g., Ecology's response to USDOE Comment #34.

2. US Ecology opposes any permit language specifying implementation of potential corrective action at the US Ecology facility through the USDOE/federal contractor permittees. These permittees have no regulatory or operational responsibility for the US Ecology facility, limited knowledge of facility operations, site conditions or license requirements, and no sublease administration role. Moreover, US Ecology has no agreements in place to work with the USDOE or its contractors, and does not currently accept any USDOE waste at its facility. For these reasons and others, US Ecology objects to any process that would require the company to work through the USDOE and/or its contractors on any regulatory compliance matter.

Ecology Response: Ecology understands and is sympathetic to US Ecology's concerns; however, because the US Ecology site is contiguous to the Hanford Facility (indeed it is surrounded by it) and owned by the USDOE, it is within the meaning of the definition of Facility for purposes of corrective action.

Ecology is also sympathetic to the argument that cleanup at the US Ecology site should be primarily the responsibility of US Ecology Inc., and carried out using the ongoing closure process administered by the Washington State Department of Health. We must, however, operate within the confines of our authorized corrective action program and EPA Region 10's guidance on the definition of Facility for purposes of corrective action. In an attempt to balance the conflicting views about cleanup of the US Ecology site, we have delayed a decision about the site-specific requirements for corrective action at the US Ecology site until after the ongoing investigation of the site is complete. Ecology has participated actively in the ongoing investigation of the US Ecology site and has worked closely with the Department of Health on the investigation requirements. Following completion of the investigation, it may be appropriate for Ecology to determine that no corrective action is necessary at the US Ecology site. Alternatively, Ecology might further postpone the decision about site-specific requirements for corrective action at the US Ecology site until after further investigation or remedial action that might be directed by the Department of Health. Based on our current knowledge of the US Ecology site and the ongoing investigation, we consider it very unlikely that the USDOE will be required to take any action under the Permit at US Ecology. We understand that expecting the USDOE to implement a cleanup action at the US Ecology site is anathema to both the USDOE and US Ecology. We are committed to continuing to work with the Commenter, US Ecology, EPA, and the Department of Health to resolve cleanup issues at the US Ecology site to the satisfaction of all parties.

In developing the proposed permit conditions, our intent was to mimic the standing arrangement between the Permittee and EPA Region 10 to delay any argument about corrective action jurisdiction at US Ecology, and to delay enforcement of corrective action requirements at US Ecology against the USDOE, until after a decision is made about the need (or lack of need) for specific corrective action activities at the US Ecology site. At a minimum, this decision cannot be made until after completion of the ongoing investigation of the US Ecology site, referenced above. We are persuaded that the permit conditions for US Ecology should be clarified to more explicitly reflect this intent and we have made appropriate modifications by removing language that might have been read as establishing a requirement for DOE to immediately begin investigating solid waste management units at the US Ecology site. Permit Condition II.Y.3.a.i now reads, "The following solid waste management units are not covered by the FFACO."3. US Ecology intends to continue working cooperatively with WDOE and WDOH to provide assurance of adequate disposal facility performance. We believe our recently submitted report on facility investigations provides a sound technical basis to continue this process. We look forward to a continuing dialogue on the report and to practical resolution of RCRA permit issues consistent with transfer of corrective action authority to WDOE.

Ecology Response: Ecology acknowledges and appreciates your comment and cooperative work to date. Please refer to Ecology's responses to comments in this Responsiveness Summary for clarification and/or changes to the proposed corrective action conditions.

COMMENTER

BECHTEL HANFORD, INC.
3350 GEORGE WASHINGTON WAY
RICHLAND, WASHINGTON 99352
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Bechtel Hanford, Inc. (BHI) appreciates the opportunity to comment on the proposed corrective action permit. We have examined a copy of the comments prepared by the U.S. Department of Energy (DOE), Richland Operations Office (RL), with the support of the Hanford Site Contractors, and submitted to you by RL. BHI fully endorses these comments.

In particular, we believe that the definition of "Permittee" for purposes of the corrective action permit should be limited to DOE. While we have been and continue to be co-operators with DOE for several Treatment, Storage, and Disposal Units at the Hanford Site, the corrective action permit that was issued by the U.S. Environmental Protection Agency has always defined "Permittee" to refer only to DOE. It would not be appropriate now to change this by placing liability for corrective action directly on contractor companies who did not create the problem of legacy contamination. Such contamination is a pre-existing condition for which, under our contract with DOE, we are not personally liable. Corrective action liability is based on ownership and control of contaminated areas. This simply does not apply to contractors, who do not own the Hanford facility.

Finally, we believe that such liability would be contrary to Section 119 of the *Comprehensive Environmental Response, Compensation and Liability Act of 1980*, which relieves response action contractors from liability under any law for pre-existing contamination at sites that they work to remediate.

Ecology Response: Without agreeing or disagreeing with the Commenter's arguments, Ecology agrees to take the requested action and has modified the definition of "Permittee" so that, for the purposes of corrective action, "Permittee" means exclusively the USDOE (see Ecology's response to USDOE's Comment #11).

COMMENTER

FLUOR DANIEL HANFORD, INC.
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Fluor Daniel Hanford, Inc. (FDH) appreciates the opportunity to comment on the proposed corrective action Permit. FDH has examined and endorses the comments prepared and submitted by the U.S. Department of Energy (DOE), Richland Operations Office (RL), with the support of the Hanford Site Contractors to the Washington State Department of Ecology.

In particular, FDH believes that the definition of "Permittee" for purposes of the corrective action Permit should be limited to the DOE. While FDH has been and continues to be co-operators with DOE for current operation of several treatment, storage, and disposal units on the Hanford Site, the corrective action permit that was issued by the U.S. Environmental Protection Agency has always defined "Permittee" to refer only to DOE. It would not be appropriate now to change this by placing liability for corrective action directly on contractor companies who did not create the problem of legacy contamination. Such contamination is a pre-existing condition under our contract

with DOE. Corrective action liability is based on contiguous ownership of contaminated areas, but this does not apply to contractors, who do not own the Hanford Facility. Finally, FDH believes that such liability would be contrary to response actions taken by contractors to mitigate pre-existing contamination.

Ecology Response: Without agreeing or disagreeing with the Commenter's arguments, Ecology agrees to take the requested action and has modified the definition of "Permittee" so that, for the purposes of corrective action, "Permittee" means exclusively the USDOE (see Ecology's response to USDOE's Comment #11).

COMMENTER

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Pacific Northwest National Laboratory (Pacific Northwest) appreciates the opportunity to comment on the proposed permit modification transmitted to Dr. William Madia on October 13, 1999. We have examined the comments that are being submitted to you by the Department of Energy, Richland Operations Office (RL), and Pacific Northwest fully endorses those comments.

Of particular interest, Pacific Northwest strongly supports the comment that the definition of "Permittee" for purposes of the corrective action permit be limited to the Department of Energy. While Pacific Northwest has been, and continues to be, a co-operator with RL for several TSD units at the Hanford Site, the corrective action permit that was issued by EPA has always defined the "Permittee" solely as RL. It is inappropriate and unreasonable to place liability for corrective action directly on contractor companies who may not have created the underlying contamination problems. Legacy contamination at the Hanford site is a pre-existing condition for which, under our contracts with RL, we are not financially liable.

Ecology Response: Without agreeing or disagreeing with the Commenter's arguments, Ecology agrees to take the requested action and has modified the definition of "Permittee" so that, for the purposes of corrective action, "Permittee" means exclusively the USDOE (see Ecology's response to USDOE's Comment #11).

COMMENTER

U.S. DEPARTMENT OF ENERGY
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RICHLAND, WASHINGTON 99352

The proposed corrective action Permit (Permit) for the Hanford Facility, replacing the corrective action provisions in the Hazardous and Solid Waste Amendments (HSWA) Permit issued in 1994 by the U.S. Environmental Protection Agency (EPA), raises significant challenges to the existing corrective action/remedial action process that was agreed to in 1989 by the Washington State Department of Ecology (Ecology), EPA, and the U.S. Department of Energy (DOE) (Tri-Parties) in the *Hanford Federal Facility Agreement and Consent Order* (termed FFACO in the draft Permit). The FFACO, in Article IV, Paragraph 20, provides as follows:

Ecology will administer the HWMA, in accordance with this Agreement, including those provisions that have not yet been authorized under RCRA Section 3006. Ecology has received authorization from EPA to implement the corrective action provisions of RCRA pursuant to Section 3006 of RCRA, and shall administer and enforce such provisions in accordance with this Agreement. Ecology may enforce the

RCRA corrective action requirements of the Agreement pursuant to Article X (Enforceability), and any disputes with DOE involving such corrective action requirements shall be resolved in accordance with Article VIII (resolution of Disputes). Disputes arising under Part Two of this Agreement including provisions of the HWMA for which the State is not authorized shall be resolved in accordance with Article VIII (Resolution of Disputes). Any disputes between EPA and Ecology concerning Subtitle C RCRA requirements will be resolved in accordance with Part Four. EPA and Ecology agree that when permits are issued to DOE for hazardous waste management activities pursuant to Part Two of this Agreement, requirements relating to remedial action for hazardous waste management units under Part Three of this Agreement shall be the RCRA corrective action requirements for those units, whether that permit is administered by EPA or Ecology. EPA and Ecology shall reference and incorporate the appropriate provisions, including schedules (and the provision for extension of such schedules) of this Agreement into such permits. [Emphasis added]

EPA, which then held sole corrective action authority, and Ecology, which anticipated receiving it, agreed that the very detailed procedures and remedies negotiated in good faith between them and DOE would fully satisfy the corrective action requirements of RCRA and its authorized State programs. This was a binding commitment made by the regulatory agencies, in return for which EPA and Ecology obtained binding commitments from DOE. Ecology therefore is not free to improvise a new procedure for carrying out corrective action, but is obligated by their commitment made in 1989, and renewed as recently as December 1998, to accept the remedial action procedures of the FFACO (for both RCRA past-practice and CERCLA Past-Practice Units) as completely satisfying the corrective action requirements of any RCRA permits.

To have the current Permit's corrective action provisions incorporate by reference the lengthy and detailed provisions of the FFACO, as was done in the 1994 Permit, HSWA Portion, Part III Corrective Action, would overwhelmingly "fulfill [Permittee's] corrective action responsibilities" that "corrective action must be specified in the permit". Furthermore, examination of the corrective action provision of WAC 173-303-646 provides less than a quarter page of regulatory direction that simply require an "owner or operator of a facility" to perform corrective actions "as necessary to protect human health and the environment" [(2)(a)], to address releases off the facility [(2)(b)], and that such "corrective action must be specified in the permit" [(2)(c)]. Aside from authorization for corrective action management unit (CAMU) at 646(4), there is a reference at WAC 173-303-646(3) to "Use of the Model Toxics Control Act" as an optional requirement that Ecology might impose as a means "to fulfill his corrective action responsibilities under subsection (2)". MTCA is the Washington State counterpart to CERCLA, and is designed to address cleanup of sites not being addressed by CERCLA action. If MTCA can fully satisfy the few corrective action requirements of WAC 173-303-646, then the very detailed provisions of CERCLA, the National Contingency Plan, and the FFACO should be more than adequate to fully satisfy State corrective action requirements.

Pursuant to the FFACO, the 1994 Permit, HSWA Portion, Condition III.A. Integration with the FFACO, Section III.A.1, EPA stated: "The corrective action for the Hanford Federal Facility will be satisfied as specified in the FFACO, as amended, except as otherwise provided herein". In the Introduction to this Permit, HSWA Portion, EPA stated that "Authorization of the state of Washington for HSWA corrective action shall not change the conditions of this permit in any substantive manner". The EPA Introduction explained that the only changes would involve changing references to Federal agencies and statutory provisions to the equivalent State counterparts within the authorized RCRA corrective action program.

Comparing the proposed Permit with that 1994 HSWA permit, Ecology's current Focus Sheet states that "[t]he corrective action conditions Ecology is proposing today are consistent with the corrective action conditions that EPA issued in 1994." DOE disagrees. The 1994 HSWA permit clearly states the primacy of the FFACO process in reaching binding decisions by DOE, EPA and Ecology on cleanup actions. The Tri-Parties agreed that decisions made through the FFACO process would presumptively satisfy the statutory and regulatory mandates given each government agency. However, the new proposed Permit appears to view the FFACO process as merely a

subordinate, first step in satisfying corrective action requirements, requirements that appear to establish a series of unilateral, after-the-fact, case-by-case decisions by Ecology.

What is more, the Focus Sheet and Fact Sheet provide no explanation or justification for the differences between the 1994 corrective action Permit and the current proposal. There is no citation to any difference between the corrective action provisions of WAC 173-303-646 and 40 CFR 264.100 that requires this altered approach, or any explanation why a continuation of the language adopted by EPA in 1994, as EPA then promised, would not fully satisfy the requirements of the WAC regulation. It seems if there were significant differences between the corrective action programs of EPA and Ecology, the differences could call into question the authorization of Ecology to enforce corrective action pursuant to RCRA/HSWA.

To the extent that EPA Region 10 has concurred with changes between its 1994 corrective action Permit and the current proposed corrective action Permit, this would constitute a de facto delegation to Ecology of EPA's authority to select remedies at Federal facilities under CERCLA Section 120(e)(4). Such delegation is in direct contradiction to CERCLA Section 120(g), that states that "*no authority vested in the Administrator under this section may be transferred, by executive order of the President or otherwise, to any other officer or employee of the United States or to any other person.*" [Emphasis added]

Subsequent to the enactment of CERCLA in 1980, HSWA was enacted in 1984 to ensure that facilities with current RCRA Permits not only prevented spills of hazardous waste through compliance with RCRA, but also remediated past spills as a condition of permitting. HSWA was not intended to displace CERCLA as the primary statutory mechanism for addressing significant releases of hazardous substances. The 1986 Superfund Amendments and Reauthorization Act (SARA), which added Section 121 to CERCLA, reaffirmed this. Section 121 established a statutory basis for the supremacy of the CERCLA process over the procedural requirements of other environmental laws. Thus, Section 121(d) states that only substantive requirements of other Federal and State laws would be applied to CERCLA response actions, via the CERCLA-managed applicable or relevant and appropriate requirements (ARARs) process. Similarly, Section 121(e)(1) exempts CERCLA response actions performed 'onsite' from all permit requirements of RCRA and other laws. The FFACO specifically recognizes that these provisions of law govern CERCLA response action on the Hanford Site at Article XVIII, Paragraph 63:

The Parties recognize that under CERCLA Secs. 121(d) and 121(e)(1), and the national contingency plan (NCP), portions of the response actions called for by this Agreement and conducted entirely on the Hanford Site are exempted from the procedural requirements to obtain Federal, State, or local permits, but must satisfy all the applicable or relevant and appropriate Federal and State standards, requirements, criteria or limitations that would have been included in any such permit.

Because CERCLA response actions conducted on the Hanford Site (that includes all of the 'facility' named as the subject of the Permit, per Article V, Paragraph 22.L. of the FFACO) are not subject to any Federal, State, or local permit, there is no basis to claim that CERCLA response actions are subject to the corrective action provisions of this Permit. In this respect, the FFACO is the implementation of legal authorities that preempt corrective action authorities.

One example of the primacy of CERCLA over RCRA requirements is *McClellan Ecological Seepage Situation [MESS] v. Perry*, 47 F.3d 325 (U.S. Court of Appeals 9th Circuit, 1995). MESS and individual plaintiffs brought suit under RCRA's citizen suit provision, seeking an injunction ordering the Air Force to obtain RCRA permits for various contaminated sites on McClellan Air Force Base that had not operated as RCRA treatment, storage, or disposal (TSD) units, which would force the Air Force to conduct cleanup under State-administered TSD closure and corrective action procedures. While recognizing that currently operating TSD units were subject to normal RCRA permit processes, the court dismissed the suit, noting that

an injunction or declaration requiring McClellan to comply with RCRA permitting requirements [for contaminated areas being remediated under CERCLA] would also interfere with the CERCLA cleanup. As McClellan points out, the entire purpose of a permit requirement is to allow the regulating agency to

impose requirements as a condition of the permit. The injunction of new requirements for dealing with the inactive sites that are now subject to the CERCLA cleanup . . . would clearly interfere with the cleanup. . . . MESS, for all practical purposes, seeks to improve on the CERCLA cleanup as embodied in the Interagency Agreement.

It is indisputable that Ecology takes seriously its charter under State law, and its authorization under RCRA and HSWA, to enforce these laws to the full extent of its authority. Nevertheless, the language of the current proposed corrective action Permit does not give sufficient recognition to the FFACO as an express agreement between the Tri-Parties, which constrains the discretion and authority of the Tri-Parties, to ensure that other actions are wholly consistent with their commitments in the FFACO. As an agency of State government, Ecology is obligated to obey all Federal laws, including those that constrain its discretion as a government agency. Nowhere in the Permit or its prefatory materials does Ecology provide justification for conditions that apparently override the FFACO and expressed provisions of CERCLA.

Ecology might disagree with the other Tri-Parties as to the fullest extent of its statutory authority, and indeed has (in FFACO Article XXVIII) reserved its rights to assert that authority. Such reservations of rights in the FFACO, alongside the countervailing reservations of rights of the other Tri-Parties, serve to outline the limits of agreement and identify subjects on which the Tri-Parties have agreed to disagree. However, the explicit placement of Ecology's assertions of authority in the proposed corrective actions Permit, without recognition of the counterbalancing assertions of the other FFACO Tri-Parties, has a very different effect than similar language in the FFACO. These Permit provisions would compel DOE as Permittee to accept Ecology's assertions in full as a precondition of receiving authority under the Permit to manage its TSD units. This is susceptible to being interpreted as a waiver by DOE, and even EPA, of legal defenses against Ecology's asserted authority.

The specific comments, beginning on page 6 of this comment package, are based on the concern over the manner in which the corrective action Permit could impose a one-sided interpretation of Federal and State law on the other FFACO Tri-Parties.

Key Comment Areas

The following key comments apply to one or more of the specific provisions of the Permit, and will be cited by title in those individual comments. When cited, the Key Comments have the meaning cited below.

1. **Conflicts with CERCLA, the FFACO, or the Permit (HSWA Portion):** (a) The CERCLA statute has several provisions that give CERCLA primacy over other environmental laws, including RCRA/HSWA. Among these provisions are Section 121, which establishes the ARARs process to give the CERCLA process control over the application of other laws, and specifically Section 121(e)(1) that exempts CERCLA response actions from all permit requirements. Other requirements might create similar conflicts with other specific laws. (b) The FFACO was negotiated between the Tri-Parties for the express purpose of reconciling the legal authorities of the Tri-Parties, especially CERCLA and RCRA, related to hazardous substance cleanup and hazardous waste management. The FFACO binds the Tri-Parties. (c) With issuance of the Permit in 1994, corrective action has been fulfilled in accordance with the terms of the 1994 Permit, HSWA Portion, Part III Corrective Action provisions issued by EPA. At issuance of that Permit, EPA stated in the Introduction that "Authorization of the State of Washington for HSWA corrective action shall not change the conditions of this permit in any substantive manner." This represents not just a prediction or a voluntary undertaking by EPA to constrain a future Ecology-issued Permit, but a recognition that the 1994 corrective action provisions were dictated by applicable law and the FFACO. As noted previously, the Tri-Parties to the FFACO at Article IV, Paragraph 20, specifically contemplated that Ecology would assume responsibility from EPA for the corrective action Permit, and Ecology bound itself to follow the same requirements as EPA in carrying out corrective action permitting. Ecology did not assert that the Permit, HSWA Portion, Part III Corrective Action was in conflict with the FFACO. Therefore, the Permit, HSWA Portion is an authoritative interpretation of the FFACO corrective action requirements that have been accepted by all Tri-Parties for the last 5 years.

2. **Exceeds regulatory authority:** Requirements that are not founded in Federal or State law and regulations, but placed into a permit, improperly subject the Permittee(s) to civil or even criminal liability to enforce arbitrary rules outside the authority of Ecology.
3. **Unreasonable, unfair, redundant, or unnecessary:** Washington State regulatory agencies are obligated under the U.S. and Washington State constitutions, as well as applicable statutory provisions such as the State Administrative Procedure Act, even when acting under color of specific laws or regulations, to impose only those requirements that are *within the zone of reasonable discretion, and avoid actions that are arbitrary, capricious, without reasonable basis in fact or not in accordance with law, and to provide due process of law when conducting enforcement actions.*
4. **Creates potential conflict with EPA requirements:** If a requirement levied under this Permit, even though *otherwise legitimate, conflicts with requirements levied by EPA under other authority, general principles of equity and fairness in the law dictate that the Permittee would be entitled to relief from one requirement or the other.*

Ecology Response: Ecology disagrees as discussed below.

The Commenter raises four main issues: first, the Commenter asserts that Ecology's proposed permit conditions for corrective action are inconsistent with agreements Ecology made in negotiating the FFACO; second, that Ecology's proposed permit conditions are inconsistent with the permit conditions for corrective action established by EPA in 1994, and that this inconsistency is unjustified; third, that Ecology's proposed permit conditions do not properly reflect that CERCLA actions and authorities "preempt" RCRA/HWMA corrective actions and authorities; and, fourth, that Ecology's proposed permit conditions reiterating reservations of right from the FFACO without recognition of the counterbalancing assertions of the other Parties could be interpreted as a waiver by the USDOE of their reserved defenses. Each of these issues is raised again, and responded to, in the context of specific proposed permit conditions; however, we take this opportunity to reply more generally to issues that flow from the relationships between CERCLA, RCRA/HWMA corrective action requirements, the FFACO and the Permit.

First, we are not persuaded that the proposed permit conditions are inconsistent with agreements Ecology made when negotiating the FFACO. As discussed further below, and later in this response, the corrective action permit conditions generally rely on work developed, approved and carried out under the FFACO as automatically satisfying corrective action requirements. As called for in the FFACO, the corrective action permit conditions generally incorporate requirements for investigations and cleanups developed, approved, and carried out under the FFACO into the Permit, by reference, as satisfying corrective action requirements. In the case of CERCLA Past Practice (CPP) Units under the FFACO, additional work might be required only if Ecology and EPA Region 10, at the highest levels and after exhausting the FFACO dispute resolution process, cannot agree on cleanup requirements. This eventuality is expressly provided for in Article XLVI, paragraph 139, of the FFACO. In the case of RCRA Past Practice (RPP) Units under the FFACO, the proposed permit conditions do not contemplate any difference between approved work under the FFACO and corrective action requirements given that, under both documents, Ecology is the final decision maker about what is necessary to protect human health and the environment. The FFACO and the FFACO Action Plan expressly assign this role to Ecology and contemplate that, concurrent with remedy selection under the FFACO for RPP Units, remedies will be incorporated into the Permit. See, e.g., Article XIV paragraphs 46, 54 and 55 of the FFACO and Section 7.4 of the FFACO Action Plan, especially figure 7-5. Finally, for RCRA/HWMA treatment, storage and disposal units, the proposed permit conditions allow the same options currently provided for under the FFACO and the Permit: either the closure and/or post-closure processes can be used to completely cleanup a closing unit, thus obviating the need for additional corrective action, or the closure and/or post-closure processes can be used to cleanup only a part of the contamination at or from a closing unit, leaving the remaining cleanup to be conducted using either the CPP Unit or RPP Unit processes.

Second, we are not persuaded that the proposed permit conditions are inconsistent with the permit conditions for corrective action that EPA established in 1994. We believe the proposed corrective action conditions are consistent with the permit conditions that EPA established in 1994 because, like EPA's conditions, Ecology's proposed conditions rely primarily on work developed and carried out pursuant to the FFACO to satisfy corrective action requirements. To the extent that Ecology has proposed some permit conditions that were not included in EPA's 1994 Permit, e.g., conditions governing corrective action at treatment, storage and disposal units and conditions governing reporting of environmental progress, the new conditions are not inconsistent with EPA's conditions or with the approach of relying primarily on the FFACO to direct cleanup work at Hanford. Ecology's explanations in the Fact and FOCUS Sheets accompanying the proposal especially highlighted proposed permit conditions that were not included in EPA's 1994 Permit, and discussed why we believe these conditions are necessary to meet corrective action requirements. Both EPA and Ecology continue to believe that the proposed state corrective action permit conditions are justified by state regulations governing corrective action and consistent with the corrective action permit conditions established in 1994. Certainly, there is nothing in Ecology's proposed permit conditions that, as the Commenter supposes, "could call into question the authorization of Ecology to enforce corrective action pursuant to RCRA/HSWA," or, we add, pursuant to the HWMA since EPA does not, as a part of authorization, delegate Federal enforcement authorities, but rather relies on authorized states, as the primary program implementers, to use independent authorities under state laws to enforce authorized provisions.

Third, and perhaps most importantly, we reject the notion that either by operation of Federal statute, or through agreements made in negotiation of the FFACO, CERCLA actions and authorities preempt RCRA/HWMA corrective actions and authorities in all cases. At Hanford the USDOE seeks (indeed, the USDOE has received) a permit under RCRA/HWMA to treat, store, or dispose of hazardous waste. Because of this circumstance, the USDOE is subject to the corrective action requirements of RCRA and the HWMA. See, e.g., RCRA Section 3004(u). The requirements for corrective action apply independent of any CERCLA action and are not preempted by CERCLA.

The CERCLA Section 121(e)(1) permit waiver does not, as the Commenter asserts, remove the basis for the claim that, at Hanford, cleanups (including cleanups for which the Parties have agreed to use CERCLA procedures) must satisfy corrective action requirements. CERCLA Section 121(e) exempts CERCLA remedial and response actions from the procedural requirements of permits, it does not exempt from corrective action requirements facilities (such as Hanford) that are subject to permitting requirements because of treatment, storage or disposal of hazardous/dangerous waste.

EPA has long recognized that many Federal facilities would be subject to cleanup under both CERCLA and RCRA corrective action. See, for example, EPA's policy on post-closure permits for regulated units at NPL sites (January 2, 1992), EPA's policy on coordination between RCRA and CERCLA actions at NPL sites (OSWER Directive 9502.1996(04), September 24, 1996), and EPA's lead regulator policy for cleanup activities at Federal facilities on the National Priorities List (November 6, 1997). This is not, as the Commenter asserts, either in general or at Hanford specifically, a contradiction of CERCLA Section 120(g). EPA has not transferred to Ecology (or so far as we know, any other state) an authority vested in the Administrator of EPA; EPA and Ecology merely recognize that at Hanford, as at many facilities, both Agencies have independent authorities and responsibilities to ensure that cleanups protect human health and the environment.

The FFACO recognizes that cleanup at Hanford is subject to both CERCLA and RCRA/HWMA corrective action and that, therefore, Ecology and EPA must coordinate these two regulatory programs. See, for example, Article IV paragraph 19 where the Parties agreed "the Parties intend that any remedial or corrective action selected, implemented and completed under Part Three of [the FFACO], shall be protective of human health and the environment such that remediation of releases covered by [the FFACO] shall obviate the need for further remedial or corrective action."

In an effort to manage the dual application of CERCLA and RCRA/HWMA corrective action requirements at Hanford, Ecology, EPA and the USDOE agreed to take a "lead agency" approach, or, to divide Hanford into areas

that would be primarily managed under either RCRA or CERCLA. The purpose of this management approach was to reduce or eliminate the potential for duplication of effort between EPA and Ecology and between the CERCLA and RCRA corrective action cleanups. It was not a waiver of jurisdiction. The categorization of a unit as a CPP unit can no more waive Ecology's authority to implement corrective action or the USDOE's responsibility to satisfy corrective action requirements than categorization of a unit as an RPP unit could waive EPA's authorities and the USDOE's responsibilities under CERCLA. The Parties recognized this in Section 5.6. of the TPA Action Plan where we agreed:

"EPA and Ecology have selected a lead regulatory agency approach to minimize duplication of effort and maximize productivity. . . the lead regulatory agency for a specific operable unit, TSD group/unit or milestone will be responsible for overseeing the activities covered by this action plan that relate to the successful completion of that milestone or activities at that operable unit or TSD group/unit, ensuring that all applicable requirements are met. However, the EPA and Ecology retain their respective legal authorities."

We note that WAC 173-303-646(3) does not, as the Commenter asserts, prejudge that an action under the Model Toxics Control Act would automatically satisfy corrective action requirements. Although a MTCA action might satisfy corrective action requirements (indeed we would expect it to since Ecology is using the MTCA regulations as guidance in developing site-specific corrective action conditions), WAC 173-303-646(3) simply highlights the choices Ecology has in determining which administrative mechanism to use to impose and oversee corrective action at any given facility, e.g., we might use a MTCA order, or a Permitor order under RCW 70.105. Of course, at Hanford, for the present, Ecology has already made decisions about administrative mechanisms, in that we have entered into the FFACO and issued the RCRA/HWMA Permit.

When evaluating how to address corrective action in the Permit, Ecology mainly considered two approaches. First, we considered an approach where we would evaluate every CERCLA lead cleanup under the Permit to confirm that corrective action requirements were met, either contemporaneously with the CERCLA cleanup or after the CERCLA cleanup was complete. We rejected this approach as potentially inconsistent with the FFACO and as inefficient, since it would automatically require Ecology to take action to evaluate and endorse the details of every CERCLA-lead cleanup. Second, we considered an approach that generally relied on work under the FFACO to automatically satisfy corrective action requirements. We choose this second approach as consistent with the FFACO and as the most efficient way to account for corrective action requirements in the Permit.

Once we had decided to go forward with an approach that relied on work carried out under the FFACO to satisfy corrective action requirements, we began to think about how to establish permit conditions. We considered the approach EPA Region 10 took in establishing their 1994 permit conditions for corrective action, that is, we considered unconditional, prospective deferral to CERCLA for areas of Hanford that are assigned a CERCLA lead under the FFACO. We rejected unconditional, prospective deferral for two reasons. First and primarily, we consider it inconsistent with Ecology's reservation of the right to take additional action at a CERCLA-lead unit if EPA and Ecology are unable to reach agreement about cleanup schedules or requirements under the FFACO. We note that, relative to CERCLA actions, Ecology is in a fundamentally different position than EPA Region 10. Under the FFACO, EPA Region 10 is the final arbiter of cleanup requirements at CERCLA-lead units thereby assuring (we assume) that they will be satisfied that the cleanup protects human health and the environment. One can understand, therefore, why the rights Ecology reserved to take action outside the FFACO at CERCLA lead units in the event that EPA and Ecology cannot agree on cleanup requirements, might not be necessary or appropriate for EPA. Second, after consulting with EPA Region 10, we were not convinced that unconditional, prospective deferral to CERCLA would satisfy the requirement in WAC 173-303-646(2)(c) and RCRA Section 3004(u), 42 U.S.C. § 6924(u), that, when corrective action cannot be completed prior to permit issuance, permits include corrective action requirements and schedules.

Therefore, although we have also chosen to generally use work under the FFACO to automatically satisfy corrective action requirements, and we have incorporated FFACO cleanup requirements and schedules, by

reference, into the Permit, we have also provided for additional action (i.e., action outside the FFACO) in the event that Ecology and EPA cannot reach agreement under the FFACO. (The limited availability of action by Ecology outside the FFACO is discussed in the second paragraph of this section, above.)

Fourth, we disagree that reiterating Ecology's reservations of rights from the FFACO in the Permit, without reiteration of the reservations of the other Parties, compels the Permittee to accept Ecology's assertions in full as a precondition of receiving the Permit, or that the reiteration of Ecology's rights constitutes a waiver of defenses. For any specific action taken by Ecology, the Permittee would retain applicable appeals and defenses. The reservation of rights simply ensures that, given the permit shield language at WAC 173-303-810(8)(a) and considering our decision to rely, in the Permit, on work developed and carried out under the FFACO, Ecology will retain the ability to exercise the rights it reserved under the FFACO.

Comments on the Corrective Action Focus Sheet and Fact Sheet

1. Focus Sheet, page 2

Focus Sheet Statement: "[t]he corrective action conditions Ecology is proposing today are consistent with the corrective action conditions that EPA issued in 1994"

Condition Impact Statement: N/A

Comment: This statement is incorrect when comparing the 1994 Permit and this proposed Permit. The statement that the conditions are consistent is misleading.

Ecology Response: Ecology disagrees. For details of our disagreement, see our response to "General Comments and Key Comments" above.

2. Focus Sheet, page 2

Focus Sheet Statement: "Like the corrective action conditions issued by EPA in 1994, the conditions proposed today are structured around continued coordination with and reliance on the investigation and cleanup requirements established under the Tri-Party Agreement. This means, generally, decisions about investigation and cleanup made under the Tri-Party Agreement will automatically serve as corrective action decisions. The major exception to this rule is in situations where a unit is a Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Past Practice Operable Unit, and EPA and Ecology cannot agree on requirements under the Tri-Party Agreement. In these types of situations, after exhausting the Tri-Party Agreement Ecology/EPA dispute resolution process, Ecology may require the Permittee to take independent action, under the permit, to fulfil corrective action obligations. Other limitations on the use of the Tri-Party Agreement to satisfy corrective action requirements and reservations of Ecology's enforcement abilities are set forth in the proposed conditions."

Condition Impact Statement: N/A

Comment: This paragraph suggests that the FFACO remains the principle document that regulates CERCLA activities. However, the specific Permit conditions found in Part II.Y. do not support that statement. For example, the specific Permit conditions contained in II.Y.3. will require that all schedules related to investigations and cleanup be incorporated into the Permit. Once the schedules are included in the Permit, Ecology will become the sole regulatory authority and, in effect, will preempt the authority of the FFACO. Therefore, although the paragraph implies that Ecology will continue to work through the FFACO, it appears that once the corrective conditions are incorporated into the Permit, there is no requirement for Ecology to work through the FFACO.

Ecology Response: Ecology disagrees as discussed below.

Paragraph 20 of the FFACO and paragraph 6.2 of the FFACO Action Plan express the parties' intent that schedules related to investigation and cleanup be incorporated into the Permit as corrective action conditions. Proposed Condition II.Y is entirely consistent with this approach. The consistency of the proposed conditions with the FFACO relative to CPP Units is also addressed specifically in our responses to "General Comments and Key Comments," above and to comments numbered 4, 8, 10, and 13 through 16.

3. Fact Sheet, page 2

Fact Sheet Statement: "How will corrective action requirements be applied under today's proposal? First, the corrective action requirements apply to the entire Hanford facility, that is, to all contiguous property that is owned or operated by the Permittee. This includes the portion of Hanford that is

leased to US Ecology, but does not include the 1100 area that has been transferred to the Port of Benton County and which has been removed from the CERCLA National Priorities List. The 1100 area was included in the definition of 'facility' in the EPA portion of the Hanford Federal Facility Permit for purposes of corrective action, but not in the existing state portion of the permit. Today's proposal would remove the 1100 area from the definition of 'facility' for corrective action purposes, consistent with the facility definition in the remainder of the state permit. By doing so, Ecology would acknowledge acceptance of the remedial action undertaken at the 1100 area under CERCLA as satisfying the requirements of corrective action. The legal description for Hanford in Attachment 2 to the state permit would not be changed by today's proposed amendments."

Condition Impact Statement: N/A

Comment: This statement does not acknowledge that the areas of Federal land entitled the "Arid Lands Ecological Reserve" (Rattlesnake Mountain and adjacent undeveloped lands south of State Highway 240) and the "North Slope" or "Wahluke Slope" (north across the Columbia River from the main body of the Hanford Site) have been delisted from the CERCLA National Priorities List and all pertinent remedial actions declared complete.

Ecology Response: Ecology disagrees as discussed below.

As discussed further in our response to comment number 10, unlike the CERCLA program where cleaned up releases and sites can be deleted from the National Priorities List, in the corrective action program, jurisdiction flows not from any specific threshold of environmental contamination, but from a requirement for permitting. RCRA Section 3004(u) requires that, when corrective action cannot be completed before permit issuance, permits address corrective action. Therefore, it is not appropriate to remove these areas from the definition of Facility for purposes of corrective action. Of course, also unlike the CERCLA program, merely being subject to corrective action jurisdiction does not automatically prompt specific remedial or response actions. Instead, corrective action is required only "as necessary to protect human health and the environment." Despite the fact that these areas remain subject to corrective action jurisdiction, given that cleanup is complete and Ecology agreed with the NPL delisting, under proposed Permit Conditions II.Y.2.i, II.Y.3.a.v and II.Y.4.b (final Permit Conditions II.Y.2.a, II.Y.2.a.iv and II.Y.3.b), corrective action is automatically considered satisfied by the approved CERCLA action and the only corrective action conditions that would remain potentially operable in the areas are: final Permit Conditions II.Y.2.a.iv, requiring the Permittee to maintain information on corrective action (proposed as Permit Condition II.Y.3.a.v) and II.Y.3.b, requiring the Permittee to notify Ecology of all newly-identified solid waste management units and all newly-identified significant releases of dangerous waste or dangerous constituents (proposed as Permit Condition II.Y.4.b). Also see response to comment number 10.

4. Fact Sheet, page 3

Fact Sheet Statement: "For CERCLA and RCRA Past Practice Units identified in the Tri-Party Agreement, the corrective action conditions proposed today are structured around continued coordination with, and reliance on, the investigation and cleanup requirements established under the Tri-Party Agreement.

"This means, generally, decisions about investigation and cleanup made under the Tri-Party Agreement will automatically serve as corrective action decisions. The major exceptions are: for CERCLA Past Practice units, in situations where EPA and Ecology cannot agree on requirements under the Tri-Party Agreement, Ecology might require the Permittee to take independent action, under the Permit, to fulfil corrective action obligations; and, for RCRA Past Practice Units, at remedy selection, remedies will be incorporated into the Permit using the permit modification procedures. Other limitations on the use of the Tri-Party Agreement to satisfy corrective action requirements and

reservations of Ecology's enforcement abilities are set forth in the proposed conditions. In addition, Ecology continues to expressly reserve its rights and abilities to exercise any administrative or judicial remedy under the following circumstances: . . . "

Condition Impact Statement: N/A

Comment: This statement acknowledges that "decisions about investigation and cleanup made under the Tri-Party Agreement will automatically serve as corrective action decisions". That is a correct characterization, and it is correct because of the specific supremacy of the CERCLA response action process over other Federal and State laws. However, the Fact Sheet communicates a view that the FFACO is an agreement fully subordinate to, and carved out from, the corrective action Permit. That is not the understanding embodied in the FFACO as understood by DOE, and as required by CERCLA. DOE therefore disagrees with the assertions in the remainder of Page 3 that state corrective action authorities can override CERCLA response actions, such that Ecology might require additional action beyond that determined by CERCLA; or that requirements of the FFACO are "enforceable under the Permit independent of the Tri-Party Agreement". The provisions in the FFACO recognize DOE's obligation to comply with RCRA requirements applicable to the management of newly generated hazardous waste without confusing the application of these requirements to CERCLA response actions regarding legacy contamination.

On Page 3 of the Fact Sheet, Ecology asserts that it will 'honor' work done under FFACO provisions. However, the substance of the Permit confirms a willingness to deviate from the constraints of the FFACO. This creates a two-fold risk to the Permittee doing remedial work. First, after the completion of any work done under the requirements of the FFACO (an order signed by Ecology) it is a strong possibility that staff from Ecology might require additional work to be done before Ecology would approve completion of the work, in disregard of the fact that the work would have been done in accordance with publicly reviewed and formally approved plans. Second, by forcing DOE and its contractors to do work per Ecology's unilateral directions, if there is an unresolved dispute between Ecology and EPA, DOE and its contractors would be placed in double jeopardy: on the one hand, from an EPA enforcement action if DOE and its contractors follow Ecology's direction, and on the other hand, from an Ecology enforcement action (including civil and criminal penalties) if DOE and its contractors follow EPA's direction.

The reservations of rights recited on Page 3 of the Fact Sheet do in fact parallel such reservations in the FFACO, in Paragraphs 97 and 98. The Permit specifically omits the reservation of rights by EPA and DOE also recited in the FFACO. In fact, because the Ecology rights are reserved in the FFACO, and make explicit reference to the FFACO, it is not at all clear why these rights must be asserted again in the Permit. Recitation of such reservations is not necessary to preserve such rights in a permit issued by a regulatory agency. Such recitations are made in agreements and consent orders to make clear that concessions and waivers made in such agreements are limited in extent, but the proposed Permit does not recite such limits. Placement of these reservations into the Permit forces DOE as Permittee to accept them without the countervailing language that appears alongside such statements in the FFACO, and elsewhere throughout the FFACO. The reservations should be omitted from the Permit.

Ecology Response: Ecology disagrees as discussed below.

The Commenter raises three issues: first, that enforcement of cleanup requirements and schedules approved under the FFACO using the Permit is inconsistent with the FFACO; second, that the permit conditions would allow Ecology to deviate from the constraints of the FFACO by raising a "strong possibility that staff from Ecology might require additional work to be done. . . in disregard of. . . publicly reviewed and formally approved plans" and placing the Permittee in jeopardy of conflicting

requirements, if there is an unresolved dispute between Ecology and EPA; and, third, that reiterating the reservations of Ecology's rights from the FFACO in the Permit is unnecessary and inappropriate.

Regarding enforcement of cleanup requirements and schedules approved under the FFACO using the Permit, the FFACO contemplates this approach. For example, at Article VI paragraph 20 the Parties agreed that "EPA and Ecology shall reference and incorporate the appropriate [corrective action] provisions, including schedules (and the provision for extension of such schedules) of this Agreement into [hazardous waste management] permits." Similarly, paragraph 6.2 of the FFACO Action Plan states, "Section 3004(u) of RCRA requires that all solid waste management units be investigated as part of the permit process. The statute provides that the timing for investigation of such units may be in accordance with a schedule of compliance specified in the permit. . . It is the intent of all parties that this requirement will be met through incorporation of applicable portions of this action plan into the RCRA permit. This will include reference to specific schedules for completion of investigations and corrective actions."

The negotiators of the Agreement were clearly aware that incorporation of corrective action provisions and schedules from the FFACO into the Permit would make these provisions and schedules enforceable under the Permit. Enforcement of the RCRA provisions of the FFACO outside the FFACO is expressly provided for by Article X paragraphs 39, 40 and 41. Paragraph 40 specifically contemplates enforcement by citizen suit under RCRA. In paragraph 41 the Parties agree that the RCRA provisions of the FFACO, including the corrective action provisions, are "RCRA statutory requirements and are thus enforceable by the Parties." Similarly, in Article XLVI, paragraph 136, the Parties agreed that "nothing in this Agreement. . . shall preclude EPA or Ecology from the direct exercise of (without employing dispute resolution) any administrative or judicial remedies available to them. . . in the event or upon the discovery of a violation of, or noncompliance with this Agreement, or any provision of CERCLA, RCRA or Ch. 70.105 RCW, not addressed by this Agreement." As discussed further in our response to "General Comments and Key Comments" above, while the Parties took a "lead agency" approach to oversight of cleanup work at Hanford, this approach was not a waiver of jurisdiction over areas assigned to a different "lead" agency. So, despite the lead agency approach, cleanups at Hanford generally remain subject to the joint jurisdiction of CERCLA and RCRA. Therefore, although we have also chosen to generally use work under the FFACO to automatically satisfy corrective action requirements, we have also provided for additional action (i.e., action outside the FFACO) in the event that Ecology and EPA cannot reach agreement under the FFACO and we have incorporated FFACO cleanup requirements and schedules, by reference, into the Permit.

Of course, the Permit only incorporates "approved" requirements and schedules, therefore, to the extent any requirement or schedule was under FFACO dispute, it would likely not be considered "approved" and, therefore, not be incorporated into, or enforceable under, the Permit. In addition, to the extent that the FFACO provides for an automatic extension to schedules if disputes are timely raised, the FFACO schedule extension, where applicable, would be automatically incorporated into the Permit as an "approved" requirement of the FFACO and the Permittee, therefore, would not be in violation of a schedule.

We are not persuaded by the Commenter's arguments that the proposed conditions, or this approach, is either fundamentally flawed, illegal, or inconsistent with the FFACO. We are persuaded, however, that the proposed conditions, as drafted, were confusing. To remedy this confusion, we have compressed proposed Conditions II.Y.2 and II.Y.3 into one final Condition II.Y.2., titled "Acceptance of Work Under Other Authorities or Programs and Integration with the FFACO." This eliminates much of the cross-referencing that would have been necessary had we retained two permit conditions as proposed.

Regarding Ecology's perceived ability to deviate from the constraints of the FFACO at will, the proposed permit conditions do not allow "staff from Ecology" to require additional work to be done in disregard of publicly reviewed and formally approved plans. This is an incorrect reading of the condition in at least two ways. First, the conditions do not allow unilateral action by Ecology staff. At CPP Units, Ecology has always reserved a limited ability to deviate from the approved requirements and schedules of the FFACO only after exhausting the dispute resolution process under Section XXVI of the FFACO. This is a formal process that first calls for the Ecology and EPA project managers to informally resolve disputes, then requires an attempt by the Inter-Agency Management Integration Team (IAMIT) to resolve disputes, and finally for the Senior Executive Committee (SEC) to resolve disputes. Ecology's designated member of the SEC is the Agency's Deputy Director, not a staff level position. Second, under the proposed permit conditions Ecology may deviate from the FFACO only if requirements for investigation or cleanup of CPP Units are in dispute between EPA and Ecology. Given the existing provisions for coordination between EPA and Ecology, and existing lead regulatory agreements, "publicly reviewed and formally approved plans" would not generally be the subject of a dispute between the regulatory agencies.

The FFACO specifically contemplates action outside the FFACO if Ecology and EPA are unable to resolve a dispute. See, for example, Article XLVI paragraph 139, where the Parties agreed that "if EPA and Ecology are in dispute concerning any matter addressed in Part Four [of the FFACO], and are unable to resolve such dispute. . .EPA, Ecology, and DOE may take any action with regard to such matters which would be appropriate in the absence of [the FFACO]." Therefore, the potential for imposition of conflicting requirements by EPA and Ecology (referred to as "double jeopardy" by the Commenter -- a misnomer under the circumstance) flows not from the proposed permit conditions per se, but rather from the enforceable requirements of CERCLA and RCRA, which are already reflected in the existing provisions of the FFACO. Finally, we note that, given the history of implementation of the FFACO at Hanford to date, it seems unlikely there would ever be a dispute that EPA and Ecology could not resolve. Both Agencies remain committed, at the highest levels, to working together to efficiently administer the cleanup of Hanford. After more than ten years of FFACO implementation, EPA and Ecology have not yet even invoked the dispute resolution process, let alone failed to reach agreement.

Regarding the reiteration of Ecology's reserved rights from Article XLVI paragraph 136, we disagree that reiterating Ecology's reservations of rights from the FFACO in the Permit, without reiteration of the reservations of the other Parties, compels the Permittee to accept Ecology's assertions in full as a precondition of receiving the Permit, or that the reiteration of Ecology's reights constitutes a waiver of defenses. For any specific action taken by Ecology, the Permittee would retain applicable appeals and defenses. The reservation of rights simply ensures that, given the permit shield language at WAC 173-303-810(8)(a) and considering our decision to rely, in the Permit, on work developed and carried out under the FFACO, Ecology will retain the ability to exercise the rights it reserved under the FFACO.

5. Fact Sheet, page 4

Fact Sheet Statement: "Third, the corrective action conditions proposed today require the Permittees to report on environmental progress at the Facility by submitting the information necessary for Ecology to evaluate the Facility's status relative to EPA's two corrective action environmental indicators. EPA's two corrective action environmental indicators, published on February 2, 1999, are: 1) current human exposures under control, and 2) migration of contaminated ground water under control. EPA has committed to achieving the human exposures environmental indicator at 90% of high-priority corrective action facilities by 2005 and the ground water environmental indicator at 75% of high-priority corrective action facilities by 2005. Besides being a valuable measure of current environmental conditions at the Facility, information on environmental indicator status is necessary for Ecology to evaluate progress towards these goals."

Comment: This statement asserts a requirement for the Permittee to report on environmental progress in accordance with an EPA goal-setting process. However, this reporting is not a requirement of RCRA, or other Federal or State law, and its application to the Hanford Site and other NPL sites is even questionable. This would divert funding from cleanup to subsidize reports not required by regulation. DOE would be placed at risk of enforcement penalties for not helping EPA collect data for a self-imposed internal agency management report. This information is not gathered through Permit conditions.

Ecology Response: Ecology disagrees with the Commenter's arguments but, for reasons outlined below, agrees to take the requested action.

The proposed condition requires the Permittee to report on the corrective action status of the facility relative to ongoing risks to humans and ongoing migration of contaminated ground water. These reports will allow Ecology (and EPA) to assess whether the Federal environmental indicators for corrective action have been met at the Facility and, more importantly, will assist Ecology in evaluating whether there is currently adequate protection of human health at the facility, and the extent to which contaminated ground water is migrating and threatening other water resources. We continue to believe that it is reasonable, and necessary to protect human health and the environment, to expect the Permittee to evaluate and understand environmental conditions at the Facility, including to determine whether unacceptable risks to humans and migration of contaminated ground water are under control. We also continue to believe that it is reasonable to expect the Permittee to report on these environmental conditions and to include these reporting requirements in the Permit. However, we understand that EPA and the other Federal Agencies and Departments, at the National level, are discussing implementation of the Federal environmental indicators at Federal Facilities with a view towards establishing environmental indicator policy. In addition, during discussions with the USDOE/Richland Operations (RL) about the proposed environmental indicator permit conditions, we were assured that the USDOE/RL would provide timely information about unacceptable human exposures and migration of contaminated ground water, even if provision of such information were not a permit requirement. Therefore, at this time, we have decided to request information on environmental indicators informally (i.e., without corresponding permit conditions).

If our informal request results in provision of adequate information, we may consider continuing to track and obtain environmental indicator information informally. If we do not receive adequate or timely information, or if Federal environmental indicator policy recommends including environmental indicator conditions in permits, we may choose to initiate a permit modification to establish conditions requiring the Permittee to report environmental indicator information.

Comments on the Corrective Action Proposed Modifications to Introduction

6. Introduction, page 2, lines 12-13

" (i.e., spill reporting, training, contingency planning, etc.). Part II includes conditions which address corrective action at solid waste management units."

Requested Action: Revise to read "Part II contains an outline of the corrective action program".

Comment Justification: Part II contains general provisions, while Part IV contains unit-specific provisions.

Ecology Response: Ecology agrees that clarification of this introductory language is appropriate but does not agree with the Commenter's proposed language. We have revised the Introduction to reference both Parts II and IV. We do not agree that Part II contains only an "outline of the corrective action program." Part II establishes operable conditions for implementation of corrective action requirements at Hanford. Part IV will be used for unit-specific corrective action requirements. This is analogous to the approach taken to RCRA closure, where Part II establishes closure conditions and Parts V and VI are used for unit-specific closure or post-closure requirements.

7. Introduction, page 2, line 20

"Part IV, **Unit-Specific Conditions for Corrective Action**, contains those Permit requirements which . . ."

Condition Impact Statement: **Unwarranted expansion of jurisdiction**

Requested Action: Introduction, page 2, line 20, Part IV, **Unit-Specific Conditions for Corrective Action:** Revise the information in this line to read: ". . . apply to solid waste management units that are undergoing corrective action and all known significant releases of dangerous waste and dangerous constituents".

Comment Justification: The current statement appears to assume that one-time significant release sites are solid waste management units. This is an erroneous assumption, as clearly demonstrated by Ecology's own corrective action rulemaking process, e.g., refer to Ecology's *Responsiveness Summary: Amendments to the Dangerous Waste Regulations – Chapter 173-303 WAC*, October 1993.

Ecology Response: Ecology agrees as discussed below.

Ecology agrees that this language could be clarified and we have revised it to read: ". . . apply to specific RPP Units that are undergoing corrective action under the FFAO. RPP Units may include Solid Waste Management Units and other Areas of Concern (i.e., releases that are not at solid waste management units and do not constitute a solid waste management unit). . ."

We note that under Ecology's corrective action program, corrective action is specifically required for all "releases of dangerous wastes and dangerous constituents including releases from solid waste management units." (WAC 173-303-646(1)(a), emphasis added.) While one-time releases and spills might be beyond what is typically considered a solid waste management unit (in that they arguably do not constitute routine or systematic waste management), they are nonetheless, releases and, therefore, are subject to corrective action. It is unclear which portion of the corrective action responsiveness summary (cite above) the Commenter intends to reference; however, the application of corrective action to all releases is discussed in detail in Ecology's response to comment 20.

Comments on Modification E Proposed Modifications to Definitions

8. Preamble of the definitions page 1, lines 3 through 11 **Key Comment:** Conflicts with CERCLA, the FFAO, or the Permit (HSWA Portion)

Draft Permit Conditions as proposed by the Department of Ecology: All definitions contained in the FFAO, 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 FFAO. However, the Permit is intended to be consistent with the FFAO. 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.

Condition Impact Statement: N/A

Requested Action: Modify the preamble of the definitions to read: "All definitions contained in the FFACO, May 1989, as amended, are hereby incorporated, in their entirety, by reference into this Permit, except that the definitions herein below shall take precedence over such FFACO definitions within this Permit. However, the Permit is intended to be interpreted as consistent with the FFACO to the maximum extent practicable... Where terms are defined in both WAC Chapter 173-303 and the FFACO, the former definitions shall take precedence within this Permit".

Comment Justification: This is to clarify that the Permit definitions supersede definitions in the FFACO only within the Permit itself. The draft language could be interpreted as superseding the FFACO definitions within the FFACO.

Ecology Response: Ecology agrees as discussed below.

Ecology agrees that the Definitions preamble should be clarified and revised it to read: "Except with respect to those terms specifically defined below, all definitions contained in the FFACO, May 1989, as amended, and in WAC 173-303-040 and other portions of Chapter 173-303-WAC, are hereby incorporated, in their entirety, by reference into this Permit. For terms defined in both Chapter 173-303 WAC and in the FFACO, the definitions contained in Chapter 173-303 WAC shall control within this Permit. Nonetheless, this Permit is intended to be consistent with the FFACO."

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| 9. Term "Contractor(s)"
page 1, lines 20 through 22 | Key Comment: Conflicts with CERCLA, the FFACO, or the Permit (HWSA Portion); unreasonable, unfair, redundant, or unnecessary; creates potential conflict with EPA requirements |
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Draft Permit Conditions as proposed by the Department of Ecology: 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).

Condition Impact Statement: N/A

Requested Action: Modify the term "Contractor(s)" to read: "The term "**Contractor(s)**" means, unless specifically identified otherwise in this Permit or Attachments, Fluor Daniel Hanford, Inc. (FDH), Bechtel Hanford, Inc. (BHI), Pacific Northwest National Laboratory (PNNL), and Lockheed Martin Hanford Company (LMHC), or their successors in interest as contractors to DOE".

Comment Justification: Lockheed Martin Hanford Company is under contract to DOE.

Ecology Response: Ecology agrees with the requested action as discussed below.

Ecology has changed the definition of "contractor(s)" to correct the inadvertent omission of Lockheed Martin Hanford Company (LMHC). The definition of "Contractor(s)" now reads, "... unless specifically identified otherwise in this Permit or Attachments, Fluor Daniel Hanford, Inc., (FDH), Pacific Northwest National Laboratory (PNNL), Bechtel Hanford, Inc., (BHI), and CH2M HILL Hanford Group, Inc." (Note: this change reflects that, after the comment period had closed, Lockheed Martin Hanford Company (LMHC) was purchased by CH2M Hill Hanford Group, Inc.)

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| 10. Definition of 'Facility'
page 2, lines 11 through 13 | Key Comment: Exceeds regulatory authority |
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Draft Permit Conditions as proposed by the Department of Ecology: The term "**Facility**" for the

purposes of corrective action under Condition II.Y, the term 'facility' means all contiguous property under the control of the Permittees and all property within the meaning of 'facility' at RCW 70.105D.020(3)¹ as set forth in Attachment 2 to this Permit.

Condition Impact Statement: This definition would include parcels not subject to corrective actions at this time.

Requested Action: Change the definition of 'Facility', item (j.) to read: "The term 'Facility' for the purposes of corrective action under Condition II.Y, means all contiguous property under the ownership of the DOE as set forth in Attachment 2 of this Permit, excluding the areas variously described as follows: the Arid Lands Ecology Reserve (ALE, southwest across State Highway 240 from the main body of the Hanford Site), the Wahluke Slope (north across the Columbia River from the main body of the Hanford Site), the 1100 Area (that has been transferred), the 100 acres leased for 99 years to the State of Washington (and sublet by the State to US Ecology, Inc.), and the 100-IU-1 and 100-IU-3 Operable Units based on a Final Record of Decision and deletion from the EPA NPL on September 30, 1996 and July 8, 1998, respectively".

Comment Justification: The ALE and the Wahluke Slope are not in fact contiguous with the Hanford Facility TSD units. The 99-year lease to the State of Washington of 100 acres for a LLW disposal site is tantamount to a transfer of title for most purposes of the law, and has effectively conveyed all indicia of ownership to the State of Washington. The Permittee did not operate or otherwise create or benefit from any Solid Waste Management Units within the leased land, and it is contrary to the intent of HSWA to hold the Permittee responsible for the activities of the State or its lessee on that property. Because the State of Washington is the landlord of US Ecology, Inc., the State should be estopped from seeking to enforce against Permittee requirements for corrective or remedial action when the State has a responsibility and opportunity to enforce such requirements directly against its own tenant, and when the only remedy available to a Permittee to enforce RCRA corrective action requirements on the leased land would be through an action by DOE as lessor directed back at the State itself as lessee, as there is no privity of contract directly between DOE and US Ecology, Inc.

Ecology Response: Ecology disagrees with the requested action as discussed below.

The Commenter makes four arguments: first, areas such as the Arid Lands Ecology Reserve and Wahluke Slope should be deleted from the definition of Facility because they are not contiguous with the Hanford Facility TSD units; second, the 1100 Area should be deleted because it has been transferred; third, the 100-IU-1 and 100-IU-3 operable units should be deleted from the definition of Facility because they have been deleted from the NPL; and, fourth, areas leased to US Ecology should be removed from the definition of Facility because "all indicia of ownership have been [effectively conveyed] to the State of Washington.

Regarding the Arid Lands Ecology Reserve and the Wahluke Slope, which are separated from the "main body" of Hanford by US Highway 240 and the Columbia River respectively, guidance on the definition of Facility for purposes of corrective action is clear that two parcels under common ownership are considered contiguous, even if separated by a road, public right of way, or river. See, e.g., 61 FR 19442 / 2 (May 1, 1996). Note that, in earlier comments, the Commenter argued that these areas should be removed from the definition of Facility for purposes of corrective action because cleanups in these areas are complete. See response to comment number 3. Regarding the 1100 Area, which was successfully cleaned up and has been transferred out of Federal ownership and is now

¹ WAC 173-303-040 definition incorrectly cites the Model Toxic Control Act definition of facility as RCW 70.105D(3). The citation should be RCW 70.105D(4). Their facility has two definitions: (a) refers to types of structures and (b) refers to any site or area where hazardous substances have been placed or otherwise become located.

owned by the Port of Benton County, before the land transfer, Ecology and EPA agreed that cleanup was complete in the 1100 area. This agreement about completion of cleanup combined with the property transfer means that the exclusion of the 1100 area from the definition of Facility for purposes of corrective action occurs by operation of the definition. The definition does not need to expressly mention the 1100 Area.

Regarding 100-IU-1 and 100-IU-3, which remain under Federal ownership, as discussed further in our response to comment 8, unlike in the CERCLA program, where cleaned up releases and sites can be deleted from the National Priorities List, in the corrective action program, jurisdiction flows not from any specific threshold of environmental contamination, but from a requirement for permitting. Therefore, at a minimum, so long as the subject area is owned by the USDOE, and is contiguous to the Hanford Facility, and so long as the Hanford Facility remains subject to permitting for treatment, storage or disposal of dangerous waste, the area remains subject to corrective action.

Of course, assuming no new contamination occurs or is discovered in the 100 IU-1 and 100 IU-3 Operable Units, there is no reason to believe additional cleanup/corrective action will be necessary to protect human health and the environment. The CERCLA action was approved under the FFACO, and Ecology and EPA are not in dispute over the action (indeed, Ecology concurred on the Record of Decision), under proposed Condition II.Y.2.i (final Condition II.Y.2.a), corrective action is automatically considered satisfied by the approved CERCLA action and the only corrective action conditions that would remain potentially operable in the areas are: final Condition II.Y.2.a.iv, requiring the Permittee to maintain information on corrective action (proposed as Condition II.Y.3.a.v) and Condition II.Y.3.b, requiring the Permittee to notify Ecology of all newly-identified solid waste management units and all newly-identified significant releases of dangerous waste or dangerous constituents (proposed as Condition II.Y.4.b). This comment also raises a larger issue about the contrast between the broad jurisdiction of the corrective action program and tailored site-specific corrective action requirements. While the jurisdiction of the corrective action program is broad, on any given site, corrective action is limited to those actions "necessary to protect human health or the environment." Ecology discussed this issue in some detail in a letter dated February 2, 1994, to Ms. Kris Backes of the Association of Washington Business. A copy of the letter is attached to this responsiveness summary (see attachment 2).

Regarding the area leased to US Ecology, EPA and Ecology have made clear that, because this area is contiguous to the Hanford Facility (indeed it is surrounded by it) and owned by the USDOE, it is within the meaning of the definition of Facility for purposes of corrective action. As the Commenter points out, on a number of occasions EPA has requested comments, or ventured proposals, to define Facility for corrective action differently at Federal Facilities than at private facilities. However, in the absence of a final action on the part of EPA, the Agency has made clear that it considers leased lands to be "under the control" of the owner/operator for purposes of corrective action, and that the Federal Agency owning these lands may be responsible for corrective action. (See, e.g., 61 FR 19442 / 3 (May 1, 1996); 55 FR 30808/2 (July 27, 1990); 64 FR 54606/3 and 54607 (October 7, 1999); and, addressing the issues raised in the March 5, 1986, Federal Register notices directly, OSWER Directive 9502.00-2 (April 18, 1986).) EPA Region 10 has made it clear that it expects Ecology to implement the definition of Facility for purposes of corrective action in a way that is consistent with current Federal guidance. We disagree that Ecology should be "estopped" from enforcing corrective action requirements against the USDOE with respect to property that the State leases from the USDOE and subleases to US Ecology. Ecology and the USDOE have obligations as regulator and Permittee that are established by State and Federal law and cannot be abrogated contractually. While Ecology, the USDOE, and US Ecology all have certain contractual rights and obligations under their lease agreements, they do not, in the regulatory context, change what constitutes a "Facility" for purposes of corrective action. In any event, Ecology has made no representation to the USDOE which would justify the operation of the

doctrine of estoppel in this circumstance.

Ecology is not unsympathetic to the argument that any needed cleanup at the US Ecology site should be primarily the responsibility of US Ecology Inc., and would be efficiently carried out using the ongoing closure process administered by the Washington State Department of Health. We must, however, operate within the confines of our authorized corrective action program and EPA Region 10's guidance on the definition of Facility for purposes of corrective action. In an attempt to balance the conflicting views about cleanup of the US Ecology site, we have delayed a decision about the site-specific requirements for corrective action at the US Ecology site until after the ongoing investigation of the site is complete. Ecology has participated actively in the ongoing investigation of the US Ecology site and has worked closely with the Department of Health on the investigation requirements. Following completion of the investigation, it may be appropriate for Ecology to determine that no corrective action is necessary at the US Ecology site. Alternatively, Ecology might further postpone the decision about site-specific requirements for corrective action at the US Ecology site until after completion of further investigation, or remedial action, that might be directed by the Department of Health.

Based on our current knowledge of the US Ecology site and the ongoing investigation, we consider it very unlikely that the USDOE will be required to take any action under the Permit at US Ecology. We cannot, however, at this time remove the US Ecology site from the definition of Facility for purposes of corrective action, or make a final decision about whether, based on site-specific conditions, corrective action requirements must be imposed for the US Ecology site. We understand that expecting the USDOE to implement a cleanup action at the US Ecology site is anathema to both the USDOE and US Ecology. We are committed to continuing to work with the Commenter, US Ecology, EPA and the Department of Health to resolve cleanup issues at the US Ecology site to the satisfaction of all parties.

Finally, we appreciate the Commenter highlighting an erroneous citation in the Dangerous Waste (DW) Regulations (Chapter 173-303 WAC). The DW Regulations are currently undergoing revision and we plan to correct the error as part of that process.

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| 11. | Definition of 'Permittees' page 2, lines 16 through 18 | Key Comment: Conflicts with CERCLA, the FFACO, or the Permit (HSWA Portion) |
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Draft Permit Conditions as proposed by the Department of Ecology: The term "**Permittees**" means the United States Department of Energy (owner/operator), Fluor Daniel Hanford, Inc. (co-operator), Bechtel Hanford, Inc. (co-operator), and Pacific Northwest National Laboratory (co-operator).

Condition Impact Statement: N/A

Requested Action: Modify the definition of 'Permittees' to read: "The term 'Permittees' for the non-corrective action portions of this Permit means the U.S. Department of Energy (DOE, owner/operator), and as co-operators of specific TSD Units, to the extent assigned by DOE, Fluor Daniel Hanford, Inc., Bechtel Hanford, Inc., Pacific Northwest National Laboratory, and Lockheed Martin Hanford Corporation, or their successors in interest as contractors to DOE. The term 'Permittee' for the corrective action portions of this Permit means only the DOE".

Comment Justification: The DOE is fully responsible under RCRA and CERCLA for corrective and response actions on its property. The co-operators of various TSD units do not own any of the real property that is the subject of potential corrective actions, so co-operators have no 'contiguous property' that could constitute a 'facility' on which corrective action requirements might be imposed. The co-operators are not necessary parties to any corrective action requirement; other than to carry out tasks assigned by DOE, the facility owner/operator. There is no basis in law for holding co-operators

responsible in any way for corrective action of SWMUs, which the co-operators did not create and do not now manage. The State's proposed definition could be interpreted to make each co-operator jointly liable for TSDs or SWMUs managed by other co-operators or by no one at all. Under the terms of their contracts with DOE, contractors are not responsible for pre-existing conditions, including in particular any legacy contamination of any portion of the DOE property that was created before their contracts. Furthermore, CERCLA §119 states that "a person who is a response action contractor with respect to any release or threatened release of a hazardous substance or pollutant or contaminant from a vessel or facility shall not be liable under this subchapter [CERCLA] or under any other Federal law [e.g. RCRA] to any person for injuries, costs, damages, expenses, or other liability . . . which results from such release or threatened release". [Emphasis added]. Because the corrective action authority asserted by the State in this Permit is derivative of an authorization by EPA pursuant to RCRA and HSWA, the State is barred from holding response action contractors liable for SWMUs that DOE contractors did not create.

Ecology Response: Ecology agrees to make the requested change without agreeing or disagreeing with the Commenter's underlying arguments. Note, under the new language the USDOE will be responsible for corrective action at any new solid waste management units or areas of concern created by the USDOE contractors, including new units/areas of concern created by the contractors through violation of the non-corrective action requirements of the Permit, the FFACO, as amended, or RCRA and the HWMA. (The contractors may, of course, still be held accountable for the underlying violations.)

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| 12. | Condition: Definition of SWMU page 2, lines 45 through 47; and page 3, lines 1 through 2 | Key Comment: Conflicts with CERCLA, the FFACO, or the Permit (HSWA Portion); unreasonable, unfair, redundant, or unnecessary; creates potential conflict with EPA requirements |
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Draft Permit Conditions as proposed by the Department of Ecology: The term "solid waste management unit" (SWMU) means any discernible location at the facility where solid wastes have been placed at any time, irrespective of whether the location was intended for the management of solid or dangerous waste and includes any area at the facility at which solid wastes have been routinely and systematically released (for example through spills) and includes dangerous waste treatment, storage and disposal units.

Condition Impact Statement: To the extent that Ecology includes land areas of SWMUs on the US Ecology, Inc. site, in particular, the 100 acres of land leased to the State of Washington, in the definition, DOE objects to the definition. Such an interpretation of the SWMU definition improperly would impose corrective action requirements on DOE who has no privity of contract with, lease with, or other control of the offending operator. This definition could detract from the dollars available for cleanup of the Hanford Facility for which DOE does have control and responsibility. Further, such an interpretation of the SWMU definition improperly subjects DOE to potential cleanup actions and cost actions taken wholly by an entity and/or persons controlled and regulated by the State of Washington under the State of Washington's lease to US Ecology Inc., and the Washington State Department of Health Radioactive Materials Licensing Division.

Requested Action: Clarify the definition to exclude the US Ecology, Inc. site and SWMUs. Either footnote the definition or add the following sentence: "To the extent that lease property is controlled by the State of Washington and regulated by Departments within the State of Washington responsible for radioactive materials licensing, this definition and Permit section on Corrective Action is inapplicable".

Comment Justification: While the DOE leased a 100-acre parcel to the State of Washington for 99 years. The State of Washington subsequently leased a parcel to US Ecology, Inc. Because of the broad terms of this lease, the property is not "under the control of the owner or operator". See 58 FR 8664,

February 16, 1993 describing that control is a condition precedent for including corrective action provisions in a permit. DOE has no real measure of control over US Ecology, Inc. US Ecology Inc. and the State of Washington have responsibility for those activities. DOE should not be placed in a position where RCRA corrective action permit conditions are placed upon it for activities controlled under an AEA by a NRC license issued by an agreement state and for which the Department of Energy Richland Operations Office has no control. Since the State of Washington is both the landlord and regulator of US Ecology, Inc. and since the purpose of the NRC license is to assure the site is operated and closed in a manner that is protective of public health and the environment, it is reasonable to expect that Washington State and the NRC will require the site to be closed in an appropriate manner. From a policy standpoint, the DOE and federal taxpayers should not be required or requested under the RCRA permit to take corrective actions at a licensed commercial radioactive low-level waste disposal facility. While the DOE would seek to obtain compensation from the State of Washington and US Ecology Inc., this process would be inefficient to all parties; any necessary corrective actions should be taken solely under the US Ecology Inc radioactive materials licenses. In addition, it is inconsistent with the requirements of the AEA to require investigation and cleanup under RCRA when these obligations are already addressed under the US Ecology Inc. Closure Plan. The justification in Comment Number 34 also applies.

Ecology Response: Ecology disagrees with the requested action. As discussed further in our response to comment 10, EPA and Ecology have made clear that, because the US Ecology site is contiguous to the Hanford Facility (indeed it is surrounded by it) and owned by the USDOE it is within the meaning of the definition of Facility for purposes of corrective action. However, as discussed further in our response to comment 10, Ecology agrees that the overlapping regulatory jurisdictions at the US Ecology site are cumbersome and we are committed to continuing our close coordination with the Washington State Department of Health. Also see response to comment 10.

Comments on Corrective Action Proposed Modifications to Part II, General Facility Conditions

13. Condition II.Y

Key Comment: Conflicts with CERCLA, the FFACO, or the Permit (HSWA Portion)

Draft Permit conditions as proposed by the Department of Ecology: In accordance with WAC 173-303-646 and WAC 173-303-815(2)(b)(ii), the Permittee must conduct corrective action, as necessary to protect human health and the environment, for releases of dangerous waste and dangerous constituents from solid waste management units and areas of concern at the facility, including releases that have migrated beyond the facility boundary. The Permittee might be required to implement measures within the facility to address releases that have migrated beyond the facility boundary.

Condition Impact Statement: This condition is inconsistent with Article IV, Paragraph 20 of the FFACO.

Requested Action: Use the language in the 1994 Permit, HSWA Portion, Part III, Corrective Action (except for the last sentence referring to Conditions III.B through III.J.).

Comment Justification: The implementation of this condition through WAC 173-303 and WAC 173-303-815(2)(b)(ii) is inconsistent with Article IV, Paragraph 20 of the FFACO. Article IV, Paragraph 20 states that Ecology will administer the HWMA, in accordance with the FFACO. Specifically as stated in Paragraph 20, Ecology will enforce corrective action authority pursuant to Article X of the FFACO and disputes will be resolved in accordance with Article VIII. The FFACO does not intend for Ecology to have sole ultimate authority for all decisions concerning the cleanup of the Hanford Site. The reference to 'facility' here does not recognize that the Hanford Site is a CERCLA NPL site where cleanup work is ongoing.

Ecology Response: Ecology disagrees with the requested action as discussed below. We do not believe

that this condition is inconsistent with Article IV, Paragraph 20 of the FFACO. This condition merely establishes that the Permittee (like all owners/operators who seek permits to treat, store or dispose of dangerous waste) must conduct corrective action in accordance with applicable regulations. That corrective action in accordance with applicable regulations is required at Hanford and that corrective action must be addressed in the Hanford Facility Permit is, in fact, anticipated by Article IV, Paragraph 20, of the FFACO where the Parties agreed that, ". . .when permits are issued to DOE for hazardous waste management activities pursuant to Part Two of this Agreement, requirements relating to remedial action for hazardous waste management units under Part Three of this Agreement shall be the RCRA corrective action requirements for those units. EPA and Ecology shall reference and incorporate the appropriate provisions, including schedules. . .of this Agreement into such permits." Other issues associated with coordination with the FFACO (including the ongoing CERCLA action) and enforcement of corrective action requirements are addressed in responses to "General Comments and Key Comments," above and in responses numbered 4, 8, 10, 14 through 26 and 33 through 36.

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14. Condition II.Y.1. (including II.Y.1.a through II.Y.1.g) **Key Comment:** Exceeds regulatory authority; creates potential conflict with EPA requirements

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

- a. As necessary to select a cleanup action in accordance with WAC 173-340-360, WAC 173-340-350 State Remedial Investigation and Feasibility Study.
- b. WAC 173-340-360 Selection of Cleanup Actions.
- c. WAC 173-340-400 Cleanup Actions
- d. WAC 173-340-410 Compliance Monitoring Requirements.
- e. WAC 173-340-420 Periodic Site Reviews.
- f. WAC 173-340-440 Institutional Controls
- g. WAC 173-340-700 through -760 Cleanup Standards.

Condition Impact Statement: This condition attempts to force CERCLA actions to comply with Chapter 173-340 (Model Toxics Control Act).

Requested Action: Delete II.Y.1 and its subsections.

Comment Justification: This Permit condition seeks to use MTCA procedures and standards to govern all actions covered by the remaining corrective action provisions, whether closure, RCRA past-practice, or CERCLA past-practice. Substantive standards embodied in MTCA and many of the MTCA provisions cited generally are considered applicable requirements under the ARARs process, and therefore are incorporated into remedial action decision documents. However, the ARARs process does specifically not incorporate procedural requirements of MTCA, and CERCLA Section 121(e)(1) excludes permitting and other procedural requirements from applying to onsite response actions. The substantive provisions of MTCA are not concentrated in any one subsection of the regulation, and the distinction between substantive and procedural was not one that entered into the drafting of the MTCA regulations. Furthermore, the CERCLA decision-making processes determine what portions of MTCA are substantive and what portions are procedural or administrative. Condition II.Y.1. proposes applying MTCA regulations directly, bypassing the ARARs process required by CERCLA. That would be contrary to Federal law. Thus, it is inappropriate for Ecology and Permittee to agree prospectively and for all time, to any specific MTCA provisions as being binding on all future response actions on the

Hanford Site. In addition, the phrasing makes corrective action mandatory unless it can be shown to Ecology's satisfaction that the FFACO fulfills Ecology's subjective judgment as to the need for additional corrective action. The burden of proof would be placed on the Permittee, and the default is to do additional work. This would be unfair and unreasonable.

Ecology Response: Ecology disagrees with the requested action as discussed below.

The Commenter raises three issues: first, that the proposed permit condition seeks to use MTCA procedures and standards to govern all corrective actions at Hanford; second, that imposing MTCA in this way bypasses the CERCLA ARARs process, and is contrary to Federal law; and, third that the proposed permit condition makes corrective action subject to Ecology's "subjective judgement," with the Permittee bearing the burden of proof that no further corrective action is needed, which they believe is unfair and unreasonable. Regarding the assertions that the proposed permit condition seeks to use MTCA procedures and standards to govern all corrective actions at Hanford, and to bypass the CERCLA ARARs process, through its reference to proposed Condition II.Y.2 (and by reference proposed Condition II.Y.3) (now combined into final Conditions II.Y.2 and II.Y.2.a), Condition II.Y.1 specifically recognizes that approved cleanup work conducted under the FFACO (including work carried out using CERCLA procedures) will generally satisfy corrective action requirements. When work conducted under the FFACO satisfies corrective action requirements, Condition II.Y.1 does not apply.

Under this approach, for CERCLA-Past Practice Units approved cleanup work conducted under the FFACO will automatically satisfy corrective action requirements unless, after exhausting the dispute resolution process under Section XXVI of the FFACO, Ecology and EPA at the highest levels cannot agree on investigation or cleanup requirements. Only then might CPP cleanups under the FFACO be subject to additional (i.e., non FFACO-related) review by Ecology and additional work potentially required under Condition II.Y.1. Similarly for RPP Units, cleanup work conducted under the FFACO will automatically satisfy corrective action requirements up to the point of remedy selection where, as contemplated by the FFACO, the final remedy selection decision and remedy implementation will be incorporated into the Permit. Even at remedy selection at RPPs, Condition II.Y.1 is not applied; instead, the Permittee is required only to make a remedy recommendation that includes all the elements of a draft MTCA cleanup action plan. Given that, for RPP units, the CERCLA remedy selection process is not used, this information is necessary for Ecology and the community to evaluate the recommended remedy and to make a remedy selection decision. The MTCA cleanup requirements, including the requirements for selection of cleanup actions, are the requirements Ecology uses to guide corrective action implementation.

We emphasize, however, that the procedures of MTCA are never applied; as contemplated by the FFACO, remedy selection decisions for RPP units will be made using the permit modification process. For RCRA treatment, storage and disposal units as well Condition II.Y.1 is not applied; instead the Permittee is required, only at the time of completion of closure or post-closure care, to account for the corrective action status of the unit in an existing required RCRA certification. Then, as for RPP units, decisions about corrective action will be incorporated into the Permit. Hence, the potential for Condition II.Y.1 to be applied to cleanup work carried out under the FFACO is very limited. Ecology has no intention of using MTCA processes to govern all corrective actions at Hanford or bypass the CERCLA ARARs process.

We also disagree with the assertion that the proposal would unfairly put the burden on the Permittee to show that work carried out under the FFACO fulfills corrective action requirements, and that the default would be to do additional work. The "default" is for acceptance of work carried out under the FFACO as satisfying corrective action requirements. For CPP units, before Ecology can impose additional requirements, we must first exhaust the FFACO dispute procedures, which would necessarily require

Ecology to justify our insistence for additional work. Therefore, the burden is not exclusively placed on the Permittee. Nonetheless, it is appropriate that the Permittee bear the burden of proving that the cleanup is complete and satisfies regulatory requirements, as it is the Permittee who is ultimately responsible for correction of releases at his/her facility. Certainly, the Permittee is not suggesting that Ecology properly bears this burden. Under the FFACO, Ecology's responsibilities are to, among other things, administer State dangerous waste management requirements (including corrective action requirements), participate in the CERCLA cleanup, and provide the USDOE with guidance and timely response to requests for guidance to assist the USDOE in its performance of the Hanford cleanup.

15. Condition II.Y.2.

Key Comment Conflicts with CERCLA, the FFACO, or the Permit (HSWA Portion); unreasonable, unfair, redundant, or unnecessary

Draft Permit Conditions as proposed by the Department of Ecology: Notwithstanding Condition II.Y.1., when agreed to by Ecology, work under other cleanup authorities or programs may be used to satisfy corrective action requirements, provided it protects human health and the environment. Ecology will evaluate work under other cleanup authorities or programs on a case-by-case basis and will incorporate its decisions about the extent to which such work satisfies corrective action requirements into this Permit using the permit modification process of WAC 173-303-830. Ecology has already made decisions about some on-going work undertaken under other authorities and programs and accepts the work as satisfying corrective action requirements to the extent provided for in Conditions II.Y.2.i and II.Y.2.ii.

Condition Impact Statement: The proposed case-by-case review introduces uncertainty and delay into the cleanup process, so that no cleanup action can be considered final. This uncertainty places an unnecessary burden on the budgeting and planning processes, and makes accountability to Congress for Federal cleanup expenditures difficult.

Requested Action: Use the general language in the 1994 Permit, HSWA Portion, Condition III.A.

Comment Justification: This condition undermines the FFACO. This condition allows Ecology through the Permit to choose between the various decisions concerning cleanup of the Hanford Facility, and allows Ecology to override any decision on cleanup Ecology so chooses. The decision whether work pursuant to the FFACO, at both CERCLA and RCRA Past-Practice Units, would satisfy the corrective action requirements of RCRA/HSWA was decided once and for all in the FFACO. This condition proposes to disregard that determination, which was negotiated and agreed to by the Tri-Parties, and to reserve to Ecology the sole authority to determine whether Ecology wants to accept any particular response action, after the fact, in lieu of original requirements from Ecology under authority of this Permit.

Ecology Response: Ecology disagrees with the requested action as discussed below.

The Commenter appears to ignore the last sentence of this provision and proposed Conditions II.Y.2.i and II.Y.2.ii. Under these provisions, approved work under the FFACO (including work carried out under CERCLA) is generally accepted, as satisfying corrective action requirements, with no separate case-by-case evaluation required. Furthermore, as discussed in our responses to "General Comments and Key Comments" and in our responses to comments numbered 2, 4, 13 and 15 though 20, in the event that Ecology and EPA cannot reach agreement under the FFACO, the FFACO specifically provides that Ecology may take independent action.

Although we disagree with the Commenter's reading of the proposed conditions, we are persuaded that the proposed condition may have been confusing to some people. To remedy this confusion, we have compressed proposed Conditions II.Y.2 and II.Y.3 into final Condition II.Y.2. This compression, while

not changing the substance of the Permit requirements, has resulted in removal of much of the language to which the Commenter objected.

16. Condition II.Y.2.i: **Key Comment** Conflicts with CERCLA, the FFAOC, or the Permit (HSWA Portion); unreasonable, unfair, redundant, or unnecessary

Draft Permit Conditions as proposed by the Department of Ecology: For units identified in Appendix C of the FFAOC, as amended, as CERCLA Past Practice Units, Ecology accepts work under the FFAOC, as amended, and under CERCLA program as satisfying corrective action requirements to the extent provided for in Conditions II.Y.3.a.i and subject to the reservations and requirements of II.Y.3.a.ii through II.Y.3.a.v and II.Y.3.d.

Condition Impact Statement: This condition damages cleanup program by creating additional requirements without additional benefits.

Requested Action: Revise this condition to read: "For CERCLA Past-Practice Units, whether currently identified or newly identified, Ecology accepts work under the FFAOC, as amended, and under the CERCLA program, as satisfying all corrective action requirements."

Comment Justification: While Ecology "accepts work under the FFAOC . . . as satisfying corrective action requirements," Ecology proposes to make such acceptance conditional on a case-by-case unilateral Ecology re-examination of each CERCLA response action for satisfaction of unspecified standards. Such re-examination is contrary to the express provisions of CERCLA Section 121, which exempts CERCLA response actions from having to satisfy the procedural requirements of other regulatory programs, whether State or Federal.

Ecology Response: Ecology disagrees with the requested action as discussed below.

First, a case-by-case re-examination of each CERCLA response action is not required. A plain reading of proposed Condition II.Y.2.i, including its reference to proposed Conditions II.Y.3.a.ii through II.Y.3.a.v and II.Y.3.d, is that approved work carried out under the FFAOC at CPP Units will automatically satisfy corrective action requirements, without any further review or evaluation under the Permit. Only when EPA and Ecology after exhausting the dispute resolution process under Section XXVI of the FFAOC, cannot agree on investigation or cleanup requirements, would additional evaluation or review under the Permit be required. Given that to date, EPA and Ecology have never invoked the dispute resolution process of Section XXVI of the FFAOC, let alone failed to reach agreement, this reservation of Ecology's rights will not result in re-examination of each CERCLA response action. This issue is discussed further in our response to "General Comments and Key Comments" above and comments numbered 4, 13, 14 and 15 through 20. (Note: proposed Conditions II.Y.2 and II.Y.3 have been compressed into final Condition II.Y.2. Therefore, proposed Condition II.Y.2.i has become final Condition II.Y.2.a, proposed Condition II.Y.3.a.ii has become final Condition II.Y.2.a.i, proposed Condition II.Y.3.a.iii has become final Condition II.Y.2.a.ii, proposed Condition II.Y.3.a.iv has become final Condition II.Y.2.a.iii, proposed condition II.Y.3.a.v has become final Condition II.Y.2.a.iv, and proposed Condition II.Y.3.d has become final Condition II.Y.2.d.)

Second, if, after exhausting the dispute resolution process under Section XXVI of the FFAOC, EPA and Ecology cannot agree on investigation or cleanup requirements for CERCLA past-practice units, the standards for additional work are clearly specified in Condition II.Y.1.

Finally, although we disagree with the Commenter's reading of the proposed permit conditions, we are persuaded that the proposed condition may have been confusing to some people. To remedy this confusion, as discussed above, we have compressed proposed Conditions II.Y.2 and II.Y.3 into final

Condition II.Y.2. This compression, while not changing the substance of the Permit requirements, has resulted in removal of much of the language to which the Commenter objected.

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17. Condition II.Y.2.ii **Key Comment:** Conflicts with CERCLA, the FFACO, or the Permit (HSPA Portion); unreasonable, unfair, redundant, or unnecessary

Draft Permit Conditions as proposed by the Department of Ecology: For units identified in Appendix C of the FFACO, as amended, as RCRA Past Practice Units, Ecology accepts work under the FFACO, as amended, as satisfying corrective action requirements to the extent provided for in Condition II.Y.3.b.i and subject to the reservations and requirements of II.Y.3.b.ii through II.Y.3.b.iv and II.Y.3.d.

Condition Impact Statement: This condition creates uncertainty in planning and execution of cleanup.

Requested Action: Revise this condition to read: "For RCRA Past-Practice Units, whether currently identified or newly identified, Ecology accepts work under the FFACO, as amended, and under the CERCLA program, as satisfying all corrective action requirements. More detailed provisions follow at II.Y.3.b." At II.Y.3.b., adopt the language of the 1994 Permit, HSPA Portion, Corrective Action, Part III.A.2. RCRA Past-Practice Units".

Comment Justification: As noted, Condition II.Y.2. contradicts the FFACO and Ecology's intentions as described in the Fact Sheet and Focus Sheet.

Ecology Response: Ecology disagrees with the requested action as discussed below.

The Commenter raises two issues: First, that inclusion of the RPP Units in the Permit, "creates uncertainty in planning and execution of cleanup," and second, that the inclusion of the RPP Units in the Permit contradicts the FFACO and Ecology's intentions as described in the Fact and FOCUS Sheets.

Regarding the "uncertainty in planning and execution of cleanup," we are not persuaded that incorporation of requirements that already exist under the FFACO into the Permit will create any new uncertainty in planning and execution of cleanup.

Regarding consistency with the FFACO, as discussed in our response to "General Comments and Key Comments" above, the FFACO specifically contemplates that corrective action requirements will be included in the Permit, so we are not persuaded that this approach is in any way inconsistent with the FFACO.

Finally, regarding Ecology's intentions as expressed in the Fact and FOCUS Sheets, as discussed in our response to "General Comments and Key Comments" above, we continue to believe that the proposed permit conditions are consistent with our intention to continue to rely primarily on work developed and carried out under the FFACO to satisfy corrective action requirements.

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18. Condition II.Y.3 **Key Comment:** Conflicts with CERCLA, the FFACO, or the Permit (HSPA Portion); exceeds regulatory authority

Draft Permit Conditions as proposed by the Department of Ecology: Corrective action is necessary to protect human health or the environment for all units identified in Appendix B and Appendix C of the FFACO.

Condition Impact Statement: This condition conflicts with the agreed process in the FFACO.

Requested Action: Delete this Introduction. Alternatively, replace this condition with the following: "In light of the requirements in the FFACO to achieve cleanup under CERCLA, for units identified in

Appendix B and C, that is protective of human health and the environment, corrective action under this Permit is unnecessary, as long as the Permittee complies with the conditions in the FFACO including modification thereto".

Comment Justification: This condition infers that both RCRA and CERCLA actions taken under the FFACO are inadequate and that only Ecology corrective actions can satisfy the overall cleanup program. The assertion that "corrective action is necessary", which is a prerequisite to the imposition of any corrective action requirements under WAC 173-303-646(2), is the equivalent of stating that the CERCLA process on the Hanford Site is inadequate to address all past contamination, whether currently known or later discovered. That assertion of inadequacy cannot be supported. The 'necessary' jurisdictional prerequisite to issuing orders under corrective action authority is simply lacking.

Ecology Response: Ecology disagrees with the requested action as discussed below.

Proposed Condition II.Y.3 simply recognizes that, because Hanford is a RCRA treatment, storage and disposal facility, corrective action is required. At many RCRA Facilities, there would be a report developed to identify solid waste management units and areas of concern that require investigation; at Hanford, these units and areas were identified through the FFACO and are listed as either "CERCLA Past Practice Units" if they will be cleaned up primarily using CERCLA procedures or "RCRA Past Practice Units" or "RCRA Treatment, Storage or Disposal Units" if they will be cleaned up primarily using RCRA procedures. The reference to these lists in the FFACO simply identifies the units at Hanford that have been already identified as needing corrective action. Given that the subparagraphs of this condition go on to incorporate the cleanup requirements and schedules of the FFACO into the Permit t by reference as corrective action requirements, it is unclear how one could infer from this condition that actions under the FFACO are inadequate.

Regarding the assertion that the 'necessary' jurisdictional prerequisite to issuing orders under corrective action authority is simply lacking," the Commenter seems to forget that, among other things, EPA entered into the FFACO, in part, pursuant to RCRA Section 3008(h), the Federal enforcement authority generally used to compel corrective action, and that Ecology entered into the FFACO, in part, pursuant to the Washington Hazardous Waste Management Act, Chapter 70.105 RCW, the authority it would generally use to implement the state dangerous waste regulations, of which corrective action requirements are a part. In any case, given that the Agency is not, at this time, proposing to issue a new corrective action order to the USDOE, it is unclear how this discussion of this jurisdictional predicate is relevant to the proposed permit conditions. The jurisdictional predicate for permitting is not, as far as we know, in dispute. Once a permit is required, both the Federal and State hazardous/dangerous waste programs clearly establish that, when corrective action cannot be completed prior to permit issuance, permits must contain corrective action conditions and schedules of compliance. See, e.g., RCRA Sections 3004(u) and 3004(v), 40 CFR 264.101, and WAC 173-303-646.

Finally, although we disagree with the Commenter's reading of the proposed permit condition, we are persuaded that the proposed condition may have been confusing to some people. To remedy this confusion, we have compressed proposed Conditions II.Y.2 and II.Y.3 into one final permit condition, II.Y.2. This compression, while not changing the substance of the Permit requirements, has resulted in moving the language objected to by the Commenter.

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| 19. Condition II.Y.3.a.
CERCLA Past Practice Units | Key Comments: Conflicts with CERCLA, the FFACO, or the Permit (HSWA Portion); exceeds regulatory authority; unreasonable, unfair, redundant, or unnecessary; creates potential conflict with EPA requirements |
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Condition Impact Statement: To place CERCLA actions under the unilateral supervision and enforcement of a RCRA delegated Permit enforcement program would directly conflict with the intent

of Congress embodied in CERCLA Section 121, and in particular the exemption from all permits in Section 121(e)(1).

Requested Action: Delete all conditions under II.Y.3.a., including II.Y.3.a.i. through II.Y.3.a.v. Reference to these conditions also should be removed from the *Permit Applicability Matrix (Attachment 3)*.

Comment Justification: Condition II.Y.3.a. would incorporate CERCLA past-practice unit decisions into the Permit and make such decisions subject to unilateral enforcement under the Permit. To place CERCLA actions under the unilateral supervision and enforcement of a RCRA delegated Permit enforcement program would directly conflict with the intent of Congress embodied in CERCLA Section 121, and in particular the exemption from all permits in Section 121(e)(1). The fact that CERCLA provides this exemption is basically acknowledged by the Washington State Attorney General in her communications to Congress, in her capacity as President of the National Association of Attorneys General. NAAG specifically has argued in favor of an amendment to CERCLA that would enable states to directly impose and enforce, through civil and criminal enforcement, additional requirements related to CERCLA response actions. The request for this amendment acknowledges that CERCLA as currently constituted does not allow such enforcement. This condition is also in direct conflict with the FFACO, which clearly did not intend that CERCLA Past-Practice Units be subject to the Permit. Unlike RCRA Past-Practice Units, which the FFACO states will be added to the Permit (fulfilled by the 1994 Permit, HSWA Portion, Condition III.A.2.), CERCLA Past-Practice Units are consistently classified throughout the FFACO as being totally outside the realm of RCRA permitting, for all intents and purposes. This is self-evident from even a cursory comparison of Sections 7.3 (Comprehensive Environmental Response, Compensation, and Liability Act Past-Practice Unit Process) and 7.4 (Resource Conservation and Recovery Act Past-Practice Unit Process) of the FFACO Action Plan. Specific comments on some of the subsections follow.

Ecology Response: Ecology disagrees with the requested action as discussed below.

The CERCLA Section 121(e)(1) permit waiver exempts CERCLA remedial and response actions from the procedural requirements of permits, it does not exempt facilities that are already subject to RCRA/HWMA permitting requirements from undertaking corrective action at the facility as a condition of permitted hazardous/dangerous waste treatment, storage or disposal. Specifically, Federal Facilities are not, by virtue of being subject to CERCLA, exempted from any RCRA corrective action requirements that might otherwise apply. This issue is addressed explicitly in CERCLA Section 120(i), “nothing in this section shall affect or impair the obligation of any department, agency or instrumentality. . .to comply with any requirement of the Solid Waste Disposal Act. . .including corrective action requirements.”

EPA has long recognized that many Federal Facilities would be subject to both cleanup under CERCLA and RCRA corrective action. See, for example, EPA’s policy on post-closure permits for regulated units at NPL sites (January 2, 1992), EPA’s policy on coordination between RCRA and CERCLA actions at NPL sites (OSWER Directive 9502.1996(04), September 24, 1996), and EPA’s lead regulator policy for cleanup activities at Federal Facilities on the National Priorities List (November 6, 1997).

The FFACO also recognizes that cleanup at Hanford is subject to both CERCLA and RCRA corrective action and, therefore, Ecology and EPA must coordinate these two regulatory programs. See, for example, Article IV paragraph 19 where the Parties agreed “the Parties intend that any remedial or corrective action selected, implement and completed under Part Three of [the FFACO] shall be protective of human health and the environment such that remediation of releases covered by [the FFACO] shall obviate the need for further remedial or corrective action.”

When EPA, Ecology, and the USDOE divided cleanup areas at Hanford into RPP Units and CPP Units

we did so to reduce or eliminate the potential for duplication of effort between EPA and Ecology, and between the CERCLA and RCRA. It was not a waiver of jurisdiction. The categorization of a unit as a CPP unit can no more waive Ecology's authority to implement corrective action or the USDOE's responsibility to satisfy corrective action requirements than categorization of a unit as an RPP unit could waive EPA's authorities and the USDOE's responsibilities under CERCLA. The Parties recognized this in Section 5.6. of the TPA Action Plan where we agreed:

"The EPA and Ecology have selected a lead regulatory agency approach to minimize duplication of effort and maximize productivity. . . . The lead regulatory agency for a specific operable unit, TSD group/unit or milestone will be responsible for overseeing the activities covered by this action plan that relate to the successful completion of that milestone or activities at that operable unit or TSD group/unit, ensuring that all applicable requirements are met. However, the EPA and Ecology retain their respective legal authorities."

Regarding the assertion that it is inappropriate to incorporate approved cleanup schedules and requirements for CERCLA into the Permit and, thereby, make them enforceable under the Permit, see responses to "General Comments and Key Comments" and comments numbered 4, 13, and 15 through 24.

20. Condition II.Y.3.a.i

Key Comment Conflicts with CERCLA, the FFAO, or the Permit (HSWA Portion); exceeds regulatory authority; unreasonable, unfair, redundant, or unnecessary; creates potential conflict with EPA requirements

Draft Permit Conditions as proposed by the Department of Ecology: For any unit identified in Appendix C of the FFAO as a CERCLA Past Practice (CPP) unit, the Permittee must comply with the requirements and schedules related to investigation and cleanup of the of CPP unit(s) developed and approved under the FFAO, as amended. The requirements and schedules related to investigation and cleanup of CPP units currently in place under the FFAO, as amended, and in the future developed and approved under the FFAO, as amended, are incorporated into this Permit by this reference and apply under this Permit as if they were fully set forth herein.

Condition Impact Statement: This condition would create double jeopardy as to any issue related to compliance with the FFAO and its milestones.

Requested Action: Delete all conditions under II.Y.3.a.i.

Comment Justification: The schedule for investigation and cleanup of the CERCLA Past Practice's is negotiated through the FFAO. The negotiations take into consideration priorities and anticipated funding. Like all plans and schedules, changes are a given. Therefore, inclusion of schedules as Permit conditions creates an administrative burden. This condition proposes to convert any enforceable provision of the FFAO into an enforceable provision of the Permit. Yet the FFAO has its' own identified enforcement mechanisms. This would create double jeopardy as to any issue related to compliance with the FFAO and its milestones, which could be enforced through two independent procedures by two different agencies of Federal and State government. Any adjustment to the milestones or other requirements would henceforward require change not only through the procedures of the FFAO, but also through the more time consuming procedures applicable to the Permit. It is possible that an extension could be granted under the FFAO, but refused under the Permit procedure. Even worse, an extension under the FFAO could be negotiated in a package with alternative requirements. It is very possible that both the old and new requirements would be enforced against the Permittee. This is an unreasonable addition to procedure that adds no benefit in performing cleanup. This illogical result is precisely the reason that Congress exempted CERCLA response actions from

RCRA and other permitting procedures through enacting Section 121(d) and (e) in the 1986 Superfund Amendments and Reauthorization Act (SARA). Condition II.Y.3.a.i. is simply contrary to law.

Ecology Response: Ecology disagrees with the requested action as discussed below.

The Commenter raises three issues related to inclusion of FFACO cleanup requirements and schedules for CPP Units in the Permit: first, a concern that it creates double jeopardy; second, a concern that it creates an administrative burden; and, third, a concern that it creates the potential for substantive differences in cleanup requirements between the Permit and the FFACO.

Regarding double jeopardy, as discussed further in our response to comment 4, the FFACO specifically contemplates action outside the FFACO when there is a violation of the FFACO, and if Ecology and EPA are unable to reach agreement under the FFACO. See, for example, Article XLVI paragraph 139, where the Parties agreed that “if EPA and Ecology are in dispute concerning any matter addressed in Part Four [of the FFACO] and are unable to resolve such dispute. . .EPA, Ecology and DOE may take any action with regard to such matters which would be appropriate in the absence of [the FFACO]” and, Article XLVI paragraph 136, where the Parties agreed that “. . .nothing in [the FFACO], except as provided in paragraphs 38 and 80 on stipulated penalties, shall preclude EPA or Ecology from the direct exercise of (without employing dispute resolution) any administrative or judicial remedies available to them . . .in the event or upon the discovery of a violation of, or noncompliance with the [FFACO]. . . ” In the absence of an agreement such as the FFACO, both RCRA/HWMA corrective action and CERCLA requirements may apply to any given release at the Facility. Therefore, the so called “double jeopardy” contemplated by the Commenter does not flow from the proposed permit conditions per se, it is already expressly created by the dual, yet equal, obligations imposed by law and the existing provisions of the FFACO.

Regarding the concerns about administrative burdens and the potential for substantive differences in cleanup requirements, provided EPA and Ecology can resolve disputes, if any, proposed Condition II.Y.3.a.i (now final Condition II.Y.2.a.i) incorporates into the Permit the requirements and schedules related to investigation and cleanup of CPP Units “currently in place under the FFACO, as amended, and in the future developed and approved under the FFACO, as amended.” This ensures that the requirements under the Permit will always correspond directly with the approved requirements and schedules under the FFACO and that no separate administrative process (or burden) is required to ensure that the Permit and the FFACO keep pace with each other.

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21. Condition II.Y.3.a.ii: **Key Comment** Conflicts with CERCLA, the FFACO, or the Permit (HSWA Portion); exceeds regulatory authority; unreasonable, unfair, redundant, or unnecessary; creates potential conflict with EPA requirements

Draft Permit Conditions as proposed by the Department of Ecology: If the Permittee is not in compliance with requirements of the HFFACO, as amended, that relate to investigation or cleanup of CPP unit(s), Ecology may take action to independently enforce the requirements as corrective action requirements under this Permit. Consistent with Article VII, paragraph 2029, and Article XLVI, paragraph 136, of the HFFACO, as amended, and other applicable provisions of the HFFACO, as amended, such enforcement actions are not subject to dispute resolution under the HFFACO.

Condition Impact Statement: This condition would create double jeopardy for the Permittee, enforcement under both the FFACO and the Permit for the same noncompliance.

Requested Action: Delete all conditions under II.Y.3.a.ii.

Comment Justification: In this condition Ecology asserts the right to bring an enforcement action

based on the Permit against any failures to satisfy Ecology that the CERCLA work, under the FFACO, is being performed adequately. As discussed previously, in connection with Condition II.Y.3.a.i., this not only would be illogical, unreasonable, and inequitable, but also contrary to the express exemption from procedural (including enforcement), administrative, and Permit requirements in CERCLA Section 121. Although Ecology cites as authority Article VII, Paragraph 29 of the FFACO, that provision is premised on DOE violating "any RCRA requirement of this Agreement", Article VII specifically is concerned with obtaining and complying with permits for TSD units. Ecology should not create its own jurisdiction over CERCLA response actions by copying these conditions from the FFACO into this Permit.

Ecology Response: Ecology disagrees with the requested action as discussed below.

The Commenter raises three issues relating to enforcement of requirements and schedules for cleanup of CPP Units under the Permit: first, that it would result in unfair double jeopardy because the Permittee would be subject to concurrent enforcement by EPA and Ecology for the same violation; second, that it is inconsistent with the FFACO; and, third, that it is inconsistent with the permit waiver provided by CERCLA Section 121.

Regarding double jeopardy, failure to undertake corrective actions included in the FFACO and incorporated into the Permit may violate both requirements but will not constitute double jeopardy. This is because the double jeopardy clause of the Fifth Amendment prohibits multiple criminal punishments for the same offense; it generally does not restrict dual remedial civil penalties or enforcement, particularly when they are undertaken pursuant to different statutory authorities and by different sovereigns. See, e.g., *United States v. Ursery*, 518 U.S. 267(1996); *Abbate v. United States*, 359 U.S. 187 (1959).

Regarding consistency with the FFACO, see our responses to "General Comments and Key Comments" and comments numbered 4, 13, and 15 through 24.

Regarding the permit waiver provided by CERCLA Section 121(e) specifically, see our response to "General Comments and Key Comments" and comment number 19.

Finally, although we disagree with the Commenter's reading of the proposed Condition, in an effort to allow all parties to move forward with these permit changes and to focus their resources on cleanup at the facility instead of generic jurisdictional arguments, we have deleted the last sentence of proposed Condition II.Y.3.a.ii. (i.e., we have deleted, "Consistent with Article VII, paragraph 20, and Article XLVI, paragraph 136, of the FFACO, as amended, and other applicable provisions of the FFACO, as amended, such enforcement actions are not subject to dispute resolution under the FFACO.") We emphasize that this deletion is in no way an indication that we believe actions to enforce permit conditions for corrective action are subject to dispute under the FFACO. (Note that proposed Condition II.Y.3.a.ii, as revised, is now final Condition II.Y.2.a.i.)

22. Condition II.Y.3.a.iii.

Key Comment Conflicts with CERCLA, the FFACO, or the Permit (HSWA Portion); exceeds regulatory authority; unreasonable, unfair, redundant, or unnecessary

Draft Permit Conditions as proposed by the Department of Ecology: In the case of interim RODs, a final decision about satisfaction of corrective action requirements will be made in the context of issuance of a final ROD.

Condition Impact Statement: Creates uncertainty for planning and budgeting of cleanup actions.

Requested Action: Delete all conditions under II.Y.3.a.iii.

Comment Justification: While Ecology's willingness to postpone RCRA evaluation of interim CERCLA records of decision (RODs) is appreciated, even review under RCRA enforcement authority of a final CERCLA ROD is still unreasonable and contrary to law, as discussed previously in Comment Numbers 18 through 21.

Ecology Response: Ecology disagrees with the requested action as discussed below.

As discussed in our responses to "General Comments and Key Comments" and comments numbered 2, 4, 13 and 15 through 20, provided Ecology and EPA can resolve their disputes, if any, about CERCLA actions, as proposed, the permit conditions do not require final CERCLA RODs (or any approved CERCLA decision or schedule under the FFACO) to be re-reviewed. The permit conditions simply incorporate by reference approved requirements and schedules for cleanup under the FFACO, we are not persuaded (and the Permittee has offered no specific information to support) that this incorporation by reference creates any new uncertainty for planning and budgeting cleanup actions.

23. Condition II.Y.3.a.iv

Key Comment Conflicts with CERCLA, the FFACO, or the Permit (HSWA Portion); exceeds regulatory authority; unreasonable, unfair, redundant, or unnecessary; creates potential conflict with EPA requirements

Draft Permit Conditions as proposed by the Department of Ecology: If EPA and Ecology, after exhausting the dispute resolution process under Section XXVI of the HFFACO, cannot agree on requirements related to investigation or cleanup of CPP unit(s), the Permittee must conduct corrective action in accordance with Condition II.Y.1. If Ecology and EPA cannot agree on requirements related to investigation or cleanup of CPP units(s), Ecology will notify the Permittee, in writing, of the disagreement. Within thirty days of receipt of Ecology's notice, the Permittee must submit for Ecology review and approval a plan to conduct corrective action in accordance with Condition II.Y.1 for the subject unit(s). The Permittee's plan may include a request that Ecology evaluate work under another authority or program as provided for by Condition II.Y.2. Approved corrective action plans under this Condition will be incorporated into this Permit in accordance with the permit modification procedures of WAC 173-303-830.

Condition Impact Statement: Proposed Permit condition II.Y.3.a.iv. would emasculate the CERCLA Past-Practice Units dispute resolution process in the FFACO by establishing Ecology as the unilateral decision-maker in the event of a dispute.

Requested Action: Delete all conditions under II.Y.3.a.iv. Alternatively add the following: "If, at the completion of dispute resolution procedures between EPA and Ecology as required by the FFACO, the Administrator of EPA has rendered a decision with which Ecology disagrees, Ecology shall not require any additional or modified remedial or corrective action since such action would not be authorized by CERCLA Section 120(e), and would be an inconsistent response action prohibited by CERCLA Section 122(e)(6)."

Comment Justification: This condition purports to give Ecology unilateral power or authority over cleanup. If for any reason Ecology disagreed with the decisions made under the FFACO procedures, Ecology would preempt all decisions made jointly by DOE with EPA and Ecology. This condition conflicts with the agreement made by Ecology in the FFACO. It also happens to be contrary to CERCLA Section 121 and 122 and the delegations of authority made by the President to DOE and EPA under Executive Order 12580.

Ecology Response: Ecology disagrees with the requested action as discussed below.

First, as discussed in our response to comment number 4, the FFACO specifically contemplates action

outside the FFACO if Ecology and EPA are unable to resolve a dispute. See, for example, Article XLVI paragraph 139, where the Parties agreed that “if EPA and Ecology are in dispute concerning any matter addressed in Part Four [of the FFACO] and are unable to resolve such dispute. . .EPA, Ecology and the USDOE may take any action with regard to such matters which would be appropriate in the absence of [the FFACO].” This does not emasculate the FFACO dispute resolution process. The Parties to the FFACO agreed to Ecology’s (and EPA’s) reservation of rights in the event that Ecology and EPA are unable to resolve disputes. The permit conditions established today, in part, continue to reserve Ecology’s rights and, in part, provide for exercise of some of the rights that Ecology reserved. When Ecology and EPA reserved their rights in the FFACO, the USDOE reserved any defense it might have. In part, the USDOE’s comments on the proposed permit conditions are an exercise of one of the USDOE’s reserved defenses. Given that the potential for action outside the HFFACO is explicitly provided for in the Agreement, it is difficult to see how the proposed or final permit conditions can be construed as inconsistent with the FFACO. To the extent that the permit conditions elaborate on how and when Ecology will exercise rights reserved in the FFACO, they would seem to facilitate cleanup planning and implementation.

Second, regarding CERCLA Section 121, see our response to comment number 19, where we detail that, contrary to the Commenter’s assertion, Ecology is not proposing to exercise CERCLA authority. Rather we are exercising RCRA/HWMA authority as we are required to by, among other things, the conditions of our authorization to implement the RCRA program. Regarding CERCLA Sections 120(e) and 122(e)(b), we disagree that Ecology’s proposed permit conditions are in any way inconsistent with these statutes. Section 120(e), which requires a Federal agency with a facility placed on the NPL to undertake an RI/FS and remedial action, must be read in light of CERCLA Section 120(i). The latter, as explained in our response to comment number 19, provides that nothing in Section 120 “shall affect, or impair the obligation of any department, agency, or instrumentality of the United States to comply with any requirements of the Solid Waste Disposal Act [42 U.S.C. 6901 et seq.] (including corrective action requirements).” Nor does Section 122(e)(6) bar a state from exercising its EPA-authorized hazardous waste management program at a Federal Facility where an RI/FS has been initiated. See, *United States v. State of Colorado*, 990 F.2d 1565 (10th Cir. 1993).

Finally, although we disagree with the Commenter’s reading of the proposed condition, in an effort to allow all parties to move forward with these permit changes and to focus their resources on cleanup at the facility instead of generic jurisdictional arguments, we have deleted the last sentence of proposed Condition II.Y.3.a.ii. (i.e., we have deleted, “Consistent with Article VII, paragraph 20, and Article XLVI, paragraph 136, of the FFACO, as amended, and other applicable provisions of the FFACO, as amended, such enforcement actions are not subject to dispute resolution under the FFACO.”) We emphasize that this deletion is in no way an indication that we believe actions to enforce permit conditions for corrective action are subject to dispute under the FFACO. (Note that proposed Condition II.Y.3.a.ii, as revised, is now final Condition II.Y.2.a.i.)

24. Condition II.Y.3.a.v.

Key Comment Conflicts with CERCLA, the FFACO, or the Permit (HSWA Portion); exceeds regulatory authority; unreasonable, unfair, redundant, or unnecessary; creates potential conflict with EPA requirements

Draft Permit Conditions as proposed by the Department of Ecology: The Permittee must maintain information on corrective action for CERCLA Past Practice Units covered by the FFACO in accordance with Sections 9.0 and 10.0 of the FFACO Action Plan. In addition, the Permittee must maintain all reports and other information developed in whole or in part to implement the requirements of Condition II.Y.3.a, including reports of investigations and all raw data, in the Facility Operating Record in accordance with Condition II.I.

Condition Impact Statement: This condition creates double jeopardy for FFACO noncompliance.

Requested Action: Delete all conditions under II.Y.3.a.v.

Comment Justification: This condition seeks to convert FFACO record keeping requirements into duties enforceable under the Permit. This condition also seeks to require additional records to be kept to facilitate enforcement under the Permit of the additional requirements levied by Condition II.Y.3.a., creating a new potential noncompliance enforceable under the Permit. Requirements in the FFACO are enforceable under the FFACO. This condition would allow Ecology to bypass the prerequisites to enforcement stated in the FFACO. Recordkeeping requirements under RCRA and other laws are not applicable to CERCLA activities, because these are procedural and administrative requirements rather than substantive ones. In particular, because these requirements emanate directly from a Permit, these requirements are not enforceable because of CERCLA Section 121(e)(1). This is the policy of EPA at all CERCLA sites.

Ecology Response: Ecology disagrees with the requested action.

For our position on incorporation of requirements and schedules under the FFACO into the Permit, see our responses to “General Comments and Key Comments” and comments 2, 4, 15 through 23 and 25. For our position on application of CERCLA Section 121(e)(1), specifically see our responses to “General Comments and Key Comments” and comment 19. Finally, although we disagree with the Commenter’s reading of the proposed condition, to ensure that there is no unnecessary duplication of effort between the Administrative Record requirements for the FFACO and the Facility Operating Record requirements under the Permit, we have added a sentence to final Condition II.Y.2.a.iv. which reads: “Information that is maintained in the Hanford Site Administrative Record may be incorporated by reference into the Facility Operating Record.”

25. Condition II.Y.3.b. RCRA Past Practice Units (including II.Y.3.b.i through II.Y.3.b.v.)

Key Comment Conflicts with CERCLA, the FFACO, or the Permit (HSWA Portion)

Draft Permit Conditions as proposed by the Department of Ecology:

II.Y.3.b.i. For any unit identified in Appendix C of the FFACO, as amended, as a RCRA Past Practice (RPP) unit, until a permit modification is complete under II.Y.3.b.iv, the Permittee must comply with the requirements and schedules related to investigation and cleanup of RPP units developed and approved under the FFACO, as amended. The requirements and schedules related to investigation and cleanup of RPP units currently in place under the FFACO, as amended, and in the future developed and approved under the FFACO, as amended, are incorporated into this Permit by this reference and apply under

this Permit as if they were fully set forth herein.

- II.Y.3.b.ii. Until a permit modification is complete under II.Y.3.b.iv, if the Permittee is not in compliance with requirements and schedules related to investigation and cleanup of RPP units developed and approved under the HFFACO, as amended, Ecology may take action to independently enforce the requirements as corrective action requirements under this Permit. Consistent with Article VII, paragraph 29, and Article XLVI, paragraph 136, of the HFFACO, as amended, and other applicable provisions of the HFFACO, such enforcement actions are not subject to dispute resolution under the HFFACO.
- II.Y.3.b.iii. When the Permittee submits a corrective measures study for an individual RPP unit or a group of RPP units, the Permittee must, at the same time, recommend a remedy for the unit(s) and request a modification to this Permit to incorporate the recommended remedy. The remedy recommendation must contain all the elements of a draft cleanup action plan under WAC 173-340-360(10). The permit modification request must follow the procedures of WAC 173-303-830(3)(c), class 3 modifications.
- II.Y.3.b.iv. After considering the Permittee's corrective measures study and remedy recommendation, and public comments received during the public comment period required by WAC 173-303-830(3)(c), Ecology will make a final determination as to what is necessary to satisfy corrective action requirements and will publish that decision as a draft permit under WAC 173-303-840(10).
- II.Y.3.b.v. The Permittee must maintain information on corrective action for RPP units covered by the FFAO, as amended, in accordance with Sections 9.0 and 10.0 of the FFAO Action Plan. In addition, the Permittee must maintain all reports and other information developed in whole or in part to implement the requirements of Condition II.Y.3.b, including reports of investigations and all raw data, in the Facility Operating Record in accordance with Condition II.I.

Condition Impact Statement: These conditions contradict the commitment made by Ecology when Ecology executed the FFAO as a State consent order.

Requested Action: Replace these conditions with the conditions set out in the 1994 Permit, HSWA Portion, Condition III.A.2. RCRA Past-Practice Units.

Comment Justification: Given the division of responsibility between EPA and Ecology as to which agency would oversee cleanup action at which locations, a threshold issue for imposing requirements on RCRA past-practice cleanup actions is whether these are in fact CERCLA actions that are being overseen by Ecology via its agreement with EPA. If that is so, for some or all of these actions, the arguments cited previously regarding CERCLA past-practice actions would apply to the corresponding RCRA past-practice actions as well. It might be argued that an actual examination of this issue in each instance is a prerequisite to the assertion by Ecology of enforcement jurisdiction. However, assuming that the RCRA Past-Practice Units are classified properly as such, there are still substantial reasons to reject the proposed Permit conditions on RCRA past-practice unit cleanup. RCRA Past-Practice Unit cleanup under the FFAO completely fulfills the RCRA/HSWA requirements for corrective action. The addition of review and enforcement processes, despite the extensive FFAO processes already being pursued to accomplish cleanup of these units, contradicts the commitment made by Ecology when Ecology executed the FFAO as a State consent order. These conditions unilaterally would replace the negotiated provisions of the FFAO. Consent orders are just as binding on the State as the orders are for the other Tri-Parties.

Ecology Response: Ecology disagrees with the requested action as discussed below.

The Commenter raises three issues with respect to inclusion of cleanup requirements and schedules for RPP Units in the Permit: first, that many of the RPP units are, in fact, being cleaned up using CERCLA procedures and, therefore, all the arguments raised relative to inclusion of cleanup requirements and schedules for CPP Units apply; second, that no requirements for RPP units are necessary under the Permit because the FFACO completely fulfills the RCRA/HSWA requirements for corrective action and the permit conditions would impose additional work; and, third, that the proposed conditions would unilaterally replace the negotiated provisions of the FFACO, contradicting commitments made by Ecology in executing the FFACO as a State consent order.

Regarding the arguments for CPP Units, see our responses to “General Comments and Key Comments” and comments numbered 2, 4, 13, and 15 through 24.

Regarding the assertions that the FFACO completely fulfills the RCRA HSWA requirements for corrective action with no need for any action under the Permit and that the conditions, as proposed, were inconsistent with agreements Ecology made in executing the FFACO, this seems contrary to the plain language of the FFACO where, for example, Article XIV paragraphs 46, 54 and 55 and Section 7.4 of the FFACO Action Plan, especially figure 7-5, seem to expressly contemplate that corrective action requirements must be incorporated into the Permit and the Permit will be modified concurrent with remedy selection for RPP Units.

Finally, although we disagree with the Commenter’s reading of the proposed permit conditions, we are persuaded that the proposed condition may have been confusing to some people. To remedy this confusion, we have compressed proposed Conditions II.Y.2 and II.Y.3 into one final condition II.Y.2. This compression has not changed the substance of the Permit requirements.

We have also revised proposed Condition II.Y.3.b to allow for Permit modification either concurrent with remedy selection or, if public involvement in the remedy selection is accomplished using another administrative mechanism, at some time after remedy selection (e.g., during the annual modification of the Permit). (See final Condition II.Y.2.c.) We believe this flexibility in the timing of the Permit modification is appropriate and will provide for efficient administration of cleanup requirements. We emphasize that, regardless of when the Permit is modified to incorporate a remedy, under no circumstances will remedies at RPP Units be approved without appropriate public participation at the time of remedy selection.

26. Condition II.Y.3.b.ii.

Key Comment: Conflicts with CERCLA, the FFACO, or the Permit (HSWA Portion)

Draft Permit Conditions as proposed by the Department of Ecology: Until a permit modification is complete under II.Y.3.b.iv, if the Permittee is not in compliance with requirements and schedules related to investigation and cleanup of RPP units developed and approved under the HFFACO, as amended, Ecology may take action to independently enforce the requirements as corrective action requirements under this Permit. Consistent with Article VII, paragraph 29, and Article XLVI, paragraph 136, of the HFFACO, as amended, and other applicable provisions of the HFFACO, such enforcement actions are not subject to dispute resolution under the HFFACO.

Condition Impact Statement: This condition denies DOE the rights afforded under the FFACO.

Requested Action: Delete last sentence of the condition.

Comment Justification: Article VII, Paragraph 29 of the FFACO allows all dispute except for the specific issue of failure to give adequate notice at least 7 days before a 'formal enforcement action'.

Ecology Response: Ecology disagrees with the requested action; however, we are persuaded that some

changes to the permit conditions are warranted, as discussed below.

In Article XLVI paragraph 136, the Parties agreed that (except for paragraphs 38 and 80), “nothing in [the FFACO] shall preclude EPA or Ecology from the direct exercise of (without employing dispute resolution) any administrative or judicial remedies available to them. . .in the event or upon the discovery of a violation of, or noncompliance with [the FFACO].” Failure to comply with the approved FFACO requirements and schedules related to investigation and cleanup of RPP units would clearly be a violation of, or noncompliance with the FFACO, subject to Ecology enforcement without first employing dispute resolution. Moreover, Article VIII, paragraph 30, of the FFACO indicates that the dispute resolution provisions of the agreement do not apply to “enforcement” nor “Dangerous Waste permit actions” which are otherwise subject to administrative or judicial appeal. Consequently, Article VII, paragraph 29 similarly indicates that permit conditions will be enforced directly, without the need for FFACO dispute resolution, usually upon seven days written notice to the USDOE.

Finally, although we disagree with the Commenter’s reading of the proposed condition, in an effort to allow all parties to move forward with these permit changes and to focus their resources on cleanup at the facility instead of generic jurisdictional arguments, we have deleted the last sentence of proposed Condition II.Y.3.b.ii, i.e., we have deleted, “Consistent with Article VII, paragraph 20, and Article XLVI, paragraph 136, of the FFACO, as amended, and other applicable provisions of the FFACO, as amended, such enforcement actions are not subject to dispute resolution under the FFACO.” (See final Condition II.Y.2.b.i.) We emphasize that this deletion is in no way an indication that we believe actions to enforce permit conditions for corrective action are subject to dispute under the FFACO.

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27. Condition II.Y.3.c. Dangerous Waste Treatment, Storage and Disposal Units (including II.Y.3.c.i through II.Y.3.c.ii) **Key Comment:** Exceeds regulatory authority; unreasonable, unfair, redundant, or unnecessary

Draft Permit Conditions as proposed by the Department of Ecology:

- II.Y.3.c.i. For each TSD unit or group of units, when the Permittee submits a certification of closure or a certification of completion of post-closure care, the Permittee must, at the same time, request to modify this Permit to either:
- II.Y.3.c.i.A. reflect that the work completed under closure and/or post-closure satisfies the requirement for corrective action; or
- II.Y.3.c.i.B. if the work completed under closure and/or post-closure care does not satisfy corrective action requirements, to incorporate unit-specific corrective action requirements.
- II.Y.3.c.ii. On completion of the public comment period initiated by the Permittee’s request under II.Y.3.c.i, Ecology will make a final decision as to whether the work completed under closure and/or post-closure care satisfies corrective action, specify any unit-specific corrective action requirements, and incorporate the decision into this Permit in accordance with the permit modification process of WAC 173-303-830.

Condition Impact Statement: These conditions would impose an inefficient permitting methodology and result in additional costs to Permittee without corresponding benefit to human health and the environment.

Requested Action: Delete these conditions in their entirety. Alternately, see subsequent comments and proposed revisions to these conditions in II.Y.3.c.

Comment Justification: Pursuant to the FFACO, the 1994 Permit, HSWA Portion, Condition III.A. Integration with the FFACO, Section III.A.1, EPA stated: "The corrective action for the Hanford

Federal Facility will be satisfied as specified in the FFACO, as amended, except as otherwise provided herein". In the Introduction to this Permit, HSWA Portion, EPA stated that "Authorization of the state of Washington for HSWA corrective action shall not change the conditions of this permit in any substantive manner". The Introduction explained that the only changes would involve changing references to Federal agencies and statutory provisions to the equivalent State counterparts within the authorized RCRA corrective action program. The statement in Ecology's current Focus Sheet (Transferring Corrective Action Conditions from Federal to State Portion of Hanford Facility-Wide RCRA Permit) that "[t]he corrective action conditions Ecology is proposing today are consistent with the corrective action conditions that EPA issued in 1994" is misleading. What is more, the Focus Sheet and Fact Sheet provide no explanation or justification for the differences between the 1994 corrective action Permit and the current proposal. There is no citation to any difference between the corrective action provisions of WAC 173-303-646 and 40 CFR 264.100 that requires this radically altered approach, or any explanation why a continuation of the language adopted by EPA in 1994, as EPA then promised, would not fully satisfy the very limited requirements of the WAC regulation. In fact, if there were significant differences between the corrective action programs of EPA and Ecology the differences would call into question the authorization of Ecology to enforce corrective action pursuant to RCRA/HSWA.

Ecology Response: Ecology disagrees with the requested action as discussed below.

The Commenter objects to corrective action requirements at dangerous waste treatment, storage and disposal units based on a belief that these requirements will impose an inefficient permitting methodology and result in additional costs without corresponding benefit to human health or the environment. In the comment justification, however, there is no information on how the permitting methodology, as proposed, would be inefficient or the basis for the belief that it will impose additional costs without corresponding human health or environmental benefits. The comment justification deals exclusively with the Commenter's perception that the proposed permit conditions are inconsistent with the corrective action permit conditions imposed by the EPA and, therefore, at best, unjustified and, at worst, an indication that Ecology is not qualified to be authorized for corrective action.

First, Ecology notes that, concurrent with our proposal of corrective action permit conditions for Hanford, the EPA proposed to withdraw their corrective action permit conditions. This Federal proposal seems to acknowledge that the proposed state corrective action permit conditions are an appropriate substitute for the Federal corrective action permit conditions and are adequate to implement a corrective action program equivalent to the Federal program and consistent with Ecology's corrective action authorization. EPA has not questioned Ecology's implementation of corrective action requirements at Hanford or Ecology's qualification to be authorized for corrective action generally. EPA did not file any comments, adverse or otherwise, on Ecology's proposed corrective action permit conditions.

Second, as discussed in our response to "General Comments and Key Comments," above, although Ecology has, in some instances, approached implementation of corrective action requirements differently than EPA did in developing its permit conditions for corrective action, we continue to believe that our proposed conditions are consistent with the corrective action permit conditions EPA issued in 1994 in that they rely primarily on actions developed and carried out under the FFACO, as amended, to satisfy corrective action requirements. More substantive concerns about the implementation of corrective action requirements at treatment, storage and disposal units are addressed in our responses to comments 28 through 32, below.

Draft Permit Conditions as proposed by the Department of Ecology:

II.Y.3.c.i. For each TSD unit or group of units, when the Permittee submits a certification of closure or a certification of completion of post-closure care, the Permittee must, at the same time, request to modify this Permit to either:

Condition Impact Statement: This condition would impose an inefficient permitting methodology and result in additional costs to Permittee without corresponding benefit to human health and the environment.

Requested Action: Delete this condition in accordance with Comment Number 27. Alternately, revise draft Permit conditions to read: "The Permittee shall identify the corrective action status of a TSD unit at the appropriate time. The appropriate time will be determined on a case-by-case basis for each TSD unit. In general, the appropriate time to identify the corrective action status of a TSD unit contained in Part III of the Permit or being incorporated into Part III of the Permit pursuant to Condition I.A.1 will occur at the time the Permittee submits a certification of closure or a certification of completion of post-closure care. In general, the appropriate time to identify the corrective action status of a TSD unit contained in Part V or VI of the Permit will have occurred at the same time the TSD unit was incorporated into the Permit. In general, the appropriate time to identify the corrective action status for a TSD unit being incorporated into Part V, or VI of the Permit pursuant to Condition I.A.1 will be at the time the TSD unit is incorporated into the Permit. Based on a case-by-case evaluation by the Permittee of the circumstances for a given TSD unit or group of units at the request of the Department, the Permittee shall select from one of the following three circumstances:"

Comment Justification: Ecology has proposed Permit conditions that do not account for the unique circumstances that may present themselves for any given Hanford Facility TSD unit. Ecology needs to draft conditions flexible enough to allow for future circumstances that can not be predicted at this time. The Permittee has proposed text to allow Ecology and the Permittee to determine the most cost effective approach to address corrective action requirements.

Ecology should not be issuing conditions that will increase the cleanup costs at Hanford. This draft condition will increase costs by limiting corrective action option selection at the time a certification of closure or a certification of completion of post-closure care is submitted. The Permittee read the condition to address only some of the circumstances that might arise for TSD units already incorporated in Parts III, V, or VI of the Permit. The Permittee is submitting the revised condition language in order to account for circumstances related to TSD units already incorporated in Parts III, V, or VI of the Permit and for circumstances related to TSD units that will be incorporated into the Permit. Other circumstances might arise when partial closure activities at a TSD unit are completed. For partial closures of a TSD unit, the circumstances might lead to a conclusion that the corrective action status of the TSD unit should be decided at the time closure for the entire TSD unit occurs and not after partial closure activities are completed.

For TSD units being incorporated into the Permit, the completion of closure activities may occur before TSD unit incorporation or after TSD unit incorporation. There are many factors in closing a Hanford Facility TSD unit that will effect the time closure activities are completed. Management of the Permit over the last five years has shown TSD unit closures are unique in many cases. The operating history for a TSD unit can be excellent as in container storage areas such as the 2401-W Storage Building within the Central Waste Complex TSD unit. On the other hand, the operational history can be poor when historical operations occurred before effective dates under the RCRA or the HWMA. For TSD units with poor operational histories, closure activities may be limited to a subset of activities now, with the rest of the closure activities taking place at a later time in coordination with FFACO Operable Unit activities.

For TSD units incorporated into Part V and VI of the Permit under post-closure care, the FFACO

Action Plan Section 6.3.2 addresses how corrective action will be addressed. The FFACO, Action Plan Section 6.3.2 states: "The post-closure permit will cover maintenance and inspection activities, groundwater monitoring requirements, and corrective action, if necessary, that will occur during the post-closure period". It is inappropriate for Ecology to alter the activities being carried out in a post-closure permit when corrective action considerations must be addressed at the time the post-closure Permit is incorporated into Part V or VI of the Permit.

The Permit condition also assumes that the Permittee will always initiate the Permit modification. This text needs to be removed from this condition since the Ecology may also initiate a Permit modification based on WAC 173-303-830.

Refer to Comment Number 27 regarding the overall comment to draft conditions contained in II.Y.3.c.

Refer to Comment Number 31 that suggests Ecology add a new condition as II.Y.3.c.i.C.

Ecology Response: Ecology, in general, disagrees with the requested action; however, we are persuaded that some changes to the proposed permit conditions are warranted, as discussed below.

The Commenter expresses concern that, as proposed, the permit conditions do not allow for adequate coordination of closure with other cleanup activities and may, for example, force a decision about corrective action requirements at a closing unit before other cleanup activities are completed.

Under the permit conditions governing closure at II.J and II.K, two options are provided: clean closure (including closure to background contamination levels) or post-closure (including modified closure). Under Condition II.K.7, either option may be integrated with other statutory or regulatory mandated cleanups. As part of this integration, documents, or portions of documents, developed and prepared in accordance with those other cleanups may be incorporated into Sections III, V, or VI of the Permit to fulfill the requirement for closure or post-closure plans; however, according to II.J.1, even when documents developed because of other cleanup requirements are used as closure or post-closure plans, at completion of closure or post-closure, certifications are required.

Under existing Condition II.J.1, completion of closure activities for all treatment, storage and disposal units incorporated into the Permit will be documented using certifications of closure in accordance with WAC 173-303-610(6) or certifications of completion of post-closure care in accordance with WAC 173-303-610(11). According to WAC 173-303-610(6) certifications of completion of closure are submitted within sixty days of completion of closure. According to WAC 173-303-610(11) certifications of completion of post-closure care are submitted within sixty days of completion of the post-closure care period.

When developing permit conditions for corrective action at treatment, storage and disposal units, Ecology's intent was to ensure that compliance with corrective action requirements was accounted for while at the same time, preserving the flexibility already included in the closure process and avoiding additional unnecessary administrative requirements. For these reasons, Ecology chose to account for corrective action requirements at closing units at the very end of the closure or post-closure processes, i.e., when the Permittee submits certifications of completion of closure or post-closure care. Because these certifications are required regardless of the administrative mechanism used to accomplish closure, they seem the surest way to ensure that corrective action requirements are accounted for without imposing additional administrative requirements. Because the certifications are submitted at the very end of the closure or post-closure process, they seem like the least intrusive point at which to account for corrective action. Of course, when documents developed under other cleanup authorities are used to administer the closure or post-closure process the appropriate equivalent in these other documents may be used as the certification of completion of closure or post-closure care. For example, if a CERCLA process is used, the Permittee might propose to use the application for a CERCLA delisting as a

certification of completion of closure or post-closure care.

Ecology emphasizes that we are not intending to impose an additional document preparation burden, only to ensure that the documents already required at completion of closure and post-closure appropriately account for the corrective action status of the closing unit. The Parties have agreed that closure of treatment, storage and disposal units will normally consider all hazardous substances including radioactive constituents. Because of this agreement, completion of closure or post-closure care will normally satisfy corrective action requirements and it will be a matter of simply including this statement in the closure or post-closure certification that is already required.

In some cases, as discussed in Section 6.3 of the FFACO Action Plan, a unit might be closed without addressing all hazardous substances. When closure activities do not address all hazardous substances, corrective action requirements remain. To account for the remaining corrective action requirements, Ecology anticipates that in these circumstances the certifications of closure would include acknowledgment that corrective action requirements remain, and reference the process that will be used to satisfy the corrective action requirements. These processes, which are likely under the auspices of past-practice unit activities, would then be covered by proposed Conditions II.Y.3.a and II.Y.3.b (final condition II.Y.2), which generally accept both RPP and CPP cleanups approved under the FFACO as automatically satisfying corrective action requirements.

In consideration of these comments, Ecology has made three changes to ensure that flexibility is maintained and to clarify these conditions. First, we have modified proposed Condition II.Y.3.c.i to allow for an assessment of corrective action at a unit to be submitted before certification of completion of closure or post-closure if Ecology and the Permittee agree (see final Condition II.Y.2.c.). While we continue to believe that certification of completion of closure or post-closure is the most appropriate and efficient time to make corrective action determinations for closing units, we are persuaded that there may be situations not currently anticipated where an earlier determination would be appropriate. We are not persuaded that it is appropriate to make a determination after certification of completion of closure or post-closure care; the completion of closure or post-closure care is a significant milestone in cleanup of treatment, storage and disposal units. A certification documenting completion of closure or post-closure care is already required. Ecology continues to believe that it is necessary to reflect the corrective action status of a unit in this certification. We reiterate that, given existing agreements to generally address all hazardous substances during closure, these certifications will generally reflect that corrective action for the closed unit is complete.

Second, we have clarified the language to ensure that when corrective action requirements at a closed unit will be met, using either the RPP or CPP Unit cleanup process, the conditions governing corrective action at past-practice units apply. (I.e., to clarify that, provided corrective action at a closed unit will be addressed using the RCRA or CERCLA past-practice unit cleanup process, the Permittee need only reference these ongoing processes in the certification and then, in accordance with proposed Conditions II.Y.3.a and II.Y.3.b (final Condition II.Y.2), generally the approved cleanup requirements and schedules under the FFACO will automatically satisfy corrective action requirements.) See final Condition II.Y.2.c.ii.

Third, we have modified proposed Conditions II.Y.3.i and II.Y.3.ii to allow decisions about corrective action requirements to be incorporated into the Permit using either Permittee initiated or Agency initiated permit modifications. (See final Condition II.Y.2.c.iii.) We are persuaded that, in many cases, it will be most efficient to incorporate these decisions into the Permit using the already established process for annual permit modification.

Draft Permit Conditions as proposed by the Department of Ecology:

II.Y.3.c.i.A. reflect that the work completed under closure and/or post-closure satisfies the requirement for corrective action; or

Condition Impact Statement: N/A

Requested Action: Delete this condition in accordance with Comment Number 26. Alternately, revise this condition to read: "The activities completed under closure and/or post-closure satisfies the requirement for corrective action;"

Comment Justification: This is an editorial change to address the new condition proposed as II.Y.3.c.i.C and the revised language for Condition II.Y.3.c.i.

Refer to Comment Number 27 regarding the overall comment to conditions contained in II.Y.3.c.

Ecology Response: While Ecology fails to see a distinction between "work completed" and "activities complete" we have made this editorial change to accommodate the Permittee. For a more substantive discussion of the need to account for corrective action at closing treatment, storage and disposal units, see our response to comment 28.

30. Condition II.Y.3.c.i.B. **Key Comment:** N/A

Draft Permit Conditions as proposed by the Department of Ecology:

II.Y.3.c.i.B. if the work completed under closure and/or post-closure care does not satisfy corrective action requirements, to incorporate unit-specific corrective action requirements

Condition Impact Statement: N/A

Requested Action: Delete this condition in accordance with Comment Number 26. Alternately, revise this condition to read: "The activities completed under closure and/or post-closure care does not satisfy corrective action requirements; or"

Comment Justification: This is an editorial change to address the new condition proposed as II.Y.3.c.i.C and the revised language for condition II.Y.3.c.i.

Refer to Comment Number 27 regarding the overall comment to the conditions contained in II.Y.3.c.

Ecology Response: Again, while Ecology fails to see a distinction between "work completed" and "activities completed" we have made this editorial change to accommodate the Permittee. For a more substantive discussion of the need to account for corrective action at closing treatment, storage and disposal units, see our response to comment 28.

31. Condition II.Y.3.c.i.C. **Key Comment:** N/A
(new condition)

Condition Impact Statement: These conditions found as II.Y.3.c.i.A and II.Y.3.C.i.B would not provide the necessary options to ensure cost effective clean up of the Hanford Facility.

Requested Action: None if Comment Number 27 is accepted. Alternately, the Permittee requests that Ecology add a new condition to address the option that allows deferral of the correction action decision. The Permit condition should read: "The activities completed under closure and/or post-closure care will be evaluated at the time the Operable Unit containing the TSD unit is addressed under the FFACO".

Comment Justification: The Permittee has suggested this condition because conditions II.Y.3.c.i.A and II.Y.3.C.i.B would not provide the necessary options to ensure cost effective clean up of the Hanford Facility. Adding this option will ensure the appropriate options are available for TSD unit closure and/or post-closure activities when the activities will be deferred to the operable unit activities.

Refer to Comment Number 27 regarding the overall comment to conditions contained in II.Y.3.c.

Ecology Response: Ecology disagrees with the requested action as discussed below.

First, as discussed in the responses to comments 27 and 28, Ecology is not persuaded that certifications of completion of closure or post-closure care should be accepted without, at the same time, an account of the corrective action status of the unit. In the unlikely event that closed units have remaining corrective action obligations Ecology continues to believe that these are properly accounted for using the existing documentation required at completion of closure or post-closure care.

Second, as discussed in responses to comments 27 and 28, Ecology is persuaded that there may be situations where it is appropriate to account for the corrective action status of a unit before completion of closure or post-closure care and has made an allowance for this. Ecology has also clarified that, in the event that corrective action at a closed (or, if the accounting is made prior to completion of closure or post-closure care, closing) in accordance with proposed Conditions II.Y.3.a and II.Y.3.b (final Condition II.Y.2), generally the approved cleanup requirements and schedules under the FFACO will automatically satisfy corrective action requirements. See final Condition II.Y.2.c.ii.

32. Condition II.Y.3.c.ii.

Key Comment: Unreasonable, unfair, redundant, or unnecessary

Draft Permit Conditions as proposed by the Department of Ecology:

II.Y.3.c.ii. On completion of the public comment period initiated by the Permittee's request under II.Y.3.c.i, Ecology will make a final decision as to whether the work completed under closure and/or post-closure care satisfies corrective action, specify any unit-specific corrective action requirements, and incorporate the decision into this Permit in accordance with the permit modification process of WAC 173-303-830.

Condition Impact Statement: This condition would impose an inefficient permitting methodology and result in additional costs to the Permittee without benefit to human health and the environment.

Requested Action: Delete this condition in accordance with Comment Number 27. Alternately, revise this condition to read: "At the appropriate time agreed to by the Permittee, the Department will determine whether closure and/or post-closure care activities performed in accordance with Part III, V, or VI of this Permit satisfy corrective action and whether the Department will specify any unit-specific corrective action requirements. If the Department determines that the activities completed under closure and/or post-closure care satisfies corrective action, the Department will incorporate the determination into this Permit in accordance with the permit modification process of WAC 173-303-830".

Comment Justification: The revised text will provide the most efficient way to document corrective action decisions for TSD units in the Permit. The language provides the necessary flexibility to address the unique circumstances that can arise in closing Hanford Facility TSD units.

This condition also assumes that the Permittee will always initiate the Permit modification. This text needs to be removed from this condition since Ecology may also initiate a Permit modification based on WAC 173-303-830.

Refer to Comment Number 27 regarding the overall comment to these conditions contained in II.Y.3.c.

Ecology Response: Ecology disagrees with the requested action. As discussed in our responses to comments 27 and 28 we continue to believe that it is appropriate to account for corrective action at closing treatment, storage and disposal units and, given that closure and post-closure certifications are already required under the Permit, we are not persuaded that including the corrective action status of a unit in these documents creates an undue burden. As discussed in our response to comment 28, we are persuaded that in many cases it will be most efficient to use the already established process for annual permit modification. See final Condition II.Y.2.c.iii.

33. Condition II.Y.3.d. (including II.Y.3.d.i. through II.Y.3.d.iii.) **Key Comment:** Conflicts with CERCLA, the FFACO, or the Permit (HSWA Portion)

Draft Permit Conditions as proposed by the Department of Ecology:

II.Y.3.d. Notwithstanding any other condition in this Permit, Ecology may directly exercise any administrative or judicial remedy under the following circumstances:

II.Y.3.d.i. Any discharge or release of dangerous waste or dangerous constituents which is not addressed by the FFACO, as amended;

II.Y.3.d.ii. Discovery of new information regarding dangerous constituents or dangerous waste management, including but not limited to, information about releases of dangerous waste or dangerous constituents which are not addressed under the FFACO, as amended; or,

II.Y.3.d.iii. A determination that action beyond the terms of the FFACO, as amended, is necessary to abate an imminent and substantial endangerment to the public health or welfare or to the environment.

Condition Impact Statement: DOE would have to accept the authority asserted in these 'reservations' to the denigration of any authority, rights and privileges that DOE might otherwise assert.

Requested Action: Delete these conditions.

Comment Justification: These conditions assert a number of 'reservations of rights' by Ecology. In various conversations with Ecology employees, the employees asserted that these reservations are equivalent to reservations in the FFACO. While the conditions might mirror provisions in the FFACO, these reservations are not identical in import or scope. Reservations in the FFACO are asserted to ensure that concessions and waivers that are explicit or implied in other provisions of that agreement are not understood to go beyond defined boundaries. Those boundaries limit the zone of agreement among the Tri-Parties. However, in the Permit these define the positive scope of Ecology's asserted sole authority, covering all matters within the Permit and going beyond it. These reservations do not acknowledge counterpart reservations of rights and authorities of DOE or EPA. Most important, by accepting this Permit, DOE would have to accept the authority asserted in these 'reservations' to the denigration of any authority, rights and privileges that DOE might otherwise assert.

Ecology Response: Ecology disagrees with the requested action. Reiterating Ecology's reservations of

rights from the FFACO in the Permit without reiteration of the reservations of the other Parties does not compel the Permittee to accept Ecology's assertions in full as a precondition of receiving the Permit or constitute a waiver of defenses. For any specific action taken by Ecology, the Permittee would retain applicable appeals and defenses. The reservation of rights simply ensures that, given the permit shield language at WAC 173-303-810(8)(a) and considering our decision to rely, in the Permit, on work developed and carried out under the FFACO, Ecology will retain the ability to exercise the rights it reserved under the FFACO.

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34. Condition: II.Y.4.a. U.S. Ecology (including Conditions II.Y.4.a.i. through II.Y.4.a.ii.) **Key Comment:** Conflicts with CERCLA, the FFACO, or the Permit (HSWA Portion); unreasonable, unfair, redundant, or unnecessary; creates potential conflict with EPA requirements

Draft Permit Conditions as proposed by the Department of Ecology:

- II.Y.4.a.i. The following solid waste management units are not covered by the FFACO, as amended, and require investigation to determine whether releases of dangerous waste or dangerous constituents that warrant corrective action have occurred or are occurring.
- II.Y.4.a.i.A US Ecology, Inc., SWMU 1 Chemical Trench.
- II.Y.4.a.i.B US Ecology, Inc., SWMU 2-13: Low-level radioactive waste trenches 1 through 11A.
- II.Y.4.a.i.C US Ecology, Inc., Underground resin tank.
- II.Y.4.a.ii Selected solid waste management units identified in Condition II.Y.4.a.i are currently being investigated by US Ecology in accordance with the Comprehensive Investigation US Ecology – Hanford Operations Work plan. US Ecology will submit to Ecology a written report on the findings of the investigation. The report will help Ecology determine whether, based on site specific conditions, additional work is needed to investigate or clean up the solid waste management units identified in Condition II.Y.4.a.i.
- II.Y.4.a.iii Following receipt of the written report, or within one year of the effective date of the Permit Condition, whichever is earlier, Ecology will make a tentative decision as to whether additional investigation or cleanup is necessary to protect human health or the environment for the solid waste management units identified in WAC 173-303-840(10). Following the associated public comment period, and consideration of any public comments received during the public comment period, Ecology will publish as final permit conditions under WAC 173-303-840(8) either:
- II.Y.4.a.iii.A a decision that corrective action is not necessary to protect human health or the environment;
- II.Y.4.a.iii.B an extension to the schedule established under III.Y.a.iii; or,
- II.Y.4.a.iii.C a decision that corrective action is necessary to protect human health or the environment.
- II.Y.4.a.iv If Ecology decides under Condition II.Y.a.iii that corrective action is necessary to protect human health or the environment, within one hundred eighty (180) day of the effective date of this decision, the Permittee must submit, for Ecology review and approval, a plan to conduct corrective action in accordance with Condition II.Y.4.a.1. Approved corrective action plans will be incorporated into this Permit in accordance with the permit modification procedures of WAC 173-303-830.

Condition Impact Statements: This section improperly imposes potential cleanup actions and cost on the Federal government for actions taken wholly by an entity and/or persons controlled and regulated by the State of Washington under the State of Washington's lease to US Ecology and the Washington State Department of Health Radioactive Materials Licensing Division.

Requested Action: Delete these conditions. Alternatively, include within the definition of SWMU, a footnote or statement stating: "To the extent that lease property is controlled by the State of Washington and regulated by Departments within the State of Washington responsible for radioactive materials licensing, this definition and Permit section on Corrective Action does not apply".

Comment Justification: The State of Washington leased a 100 acre parcel of land from the DOE to establish a commercial radioactive waste disposal site for 99 years. The State subsequently leased the property to US Ecology, Inc. and is the controlling landlord of US Ecology, Inc. Before leasing to the State, the land was pristine with no known contamination. In addition, US Ecology, Inc. maintains a license with the State of Washington Radioactive Materials Licensing Division that includes provisions for closure of their site in accordance with a Facility Closure and Stabilization Plan ('Closure Plan'). The US Ecology, Inc. Closure Plan is independent of any closure plan or responsibility of DOE for the Hanford Facility. The site-specific permitting and closure processes specified in the US Ecology, Inc., radioactive materials licenses (licenses created pursuant to the AEA) should take precedence over an investigation of corrective action SWMUs undertaken in accordance with RCRA Section 3004(u). Any cleanup requirements related to SWMUs on the US Ecology, Inc., site should be incorporated into the US Ecology, Inc., Closure Plan through the radioactive materials licensing processes performed by the State of Washington or through Washington State's MTCA.

Despite these facts, Ecology, following EPA's lead, included the 100-acre parcel as part of the 'facility' merely because of the DOE's ownership of the bare legal title. This position is contrary to the definition of 'facility' in 40 CFR 260.10 and WAC 173-303-040 and EPA's/Ecology's before interpretation of that definition.

When EPA included the 100-acre parcel as part of the 'facility' in the 1994 Permit, HSWA Portion, DOE appealed the condition. The parties stayed the condition until Washington State received authority to administer the RCRA Corrective Action program from EPA. Authority has been delegated. Presently, Ecology is attempting to reserve RCRA corrective action authority over certain land units on the US Ecology, Inc. site based on Washington State investigating the US Ecology, Inc., SWMUs pursuant to an action independent of DOE. Then as now the application of the definition of 'facility' under 40 CFR 260.10 and WAC 173-303-040 to Federal lands that are subject to a lease is an important policy consideration, that EPA has recognized since at least 1985, but which EPA has never resolved. Neither is there clear guidance from Ecology on the issue.

The definition of facility for corrective action purposes requires more than mere ownership. US Ecology, Inc., should be included in the Permit only if it is part of the same 'facility'. The Federal and State hazardous waste management definitions for facility are the same. Like the Federal definition, under WAC 173-303-040 'facility' has two definitions. For permitting, there is a narrower definition that includes all contiguous land, and structures, appurtenances, and improvements on the land used for recycling, reusing, reclaiming, transferring, storing, treating, or disposing of dangerous waste. For the purposes of implementing corrective action imposed pursuant to WAC 173-303-646(2) or (3), the term facility has the meaning that follows. "All contiguous property *under the control* of an owner or operator seeking or required to have a permit under the provisions of 70.105 RCW or chapter 173-303 WAC, including the definition of RCW 70.105D.020(3)²" (Emphasis added).

In creating the regulations, Ecology could have referred to all contiguous property "owned by the owner or operator", but did not do so. Instead, it used the term "under the control" of the permit seeker. The same term appears in the EPA definition of 'facility' for the purposes of corrective actions. Under

² WAC 173-303-040 definition incorrectly cites the Model Toxic Control Act definition of facility as RCW 70.105D(3). The citation should be RCW 70.105D(4). Their facility has two definitions: (a) refers to types of structures and (b) refers to any site or area where hazardous substances have been placed or otherwise become located.

40 CFR 260.10, 'facility' also has two definitions. For permitting there is a narrower definition that includes all contiguous property used for TSD of hazardous waste. But, for the purposes of implementing corrective action, 'facility' means "all contiguous property under the control of the owner or operator seeking a permit".

EPA recognized early on this definition created particular issues for Federal facilities, especially where the Federal agency does not hold unencumbered title to all contiguous property. In the July 15, 1985 preamble to EPA's Final Codification Rule, EPA stated that the "extent to which the previously interpretation applies to Federal facilities raises legal and policy issues that the agency has not yet resolved". 50 Fed. Reg. 28,712. EPA pledged in 1985 to use its best efforts to resolve these issues "in the next 60 days". These are still unresolved over 14 years later.

On March 5, 1986, EPA published a Notice of Policy, 51 Fed. Reg. 7722, and Notice of Intent to Propose Rules, 51 Fed. Reg. 7723, concerning the application of the definition of 'facility' to Federal facilities. The latter Notice discussed the issue of Federal lands in which other parties held leases or other rights. Federal agencies had questioned whether Federal lands would be considered the owners of all adjacent property, including such leased parcels, and thus be subject to broad corrective action requirements. EPA stated that it intended to propose a rule to recognize different 'principal owners' for purposes of defining the facility boundary. EPA stated:

To determine whether a private party on Federal lands should be treated as a 'principal owner', EPA might consider factors such as the degree of control the Federal agency exercises over the private party's actions, or the amount of benefit the agency derives from the private party's waste management operation.

51 Fed. Reg. 7723. Until a final rule was adopted, EPA stated that it would address this issue on a case-by-case basis. 51 Fed. Reg. 7724. But EPA did not propose a rule on this issue. In the 1994 Permit, HSWA Portion, EPA completely reversed its position. In its Response to Comments EPA stated:

EPA believes that property ownership alone, in the context of corrective action for contiguous property at a Federal facility is the requisite degree of 'control' required to assert RCRA Section 3004(u) corrective action authority.

The EPA Response to Comments, (August 29, 1994) assertion is incorrect for several reasons:

It is contrary to the language of the regulation. If property ownership alone equals 'control', the regulation could have simply used the concept of 'ownership' to define the facility, as it does in the definition of 'onsite'. 40 CFR 260.10. EPA's 1994 response interpretation robs 'under the control' of its normal meaning and alters the meaning of the regulation.

If EPA's 1994 response interpretation is correct, the published Notice of Intent is meaningless. A Federal agency that owns bare legal title to property, always would have to include it as part of the facility for corrective action. It would not matter if the land were leased, nor what 'degree of control' the Federal government actually exercised.

Clearly bare legal title cannot automatically convey 'control'. The terms of a long-term lease might greatly limit what the owner can do on the leased property. In fact, at law a tenant is entitled to quiet enjoyment of property as against the landlord. See 49 Am. Jur. 2d Landlord and Tenant 280, 336.

EPA's unpublished guidance, OSWER No. 9502.00-2 (April 18, 1986), does not address the issue of control of leased land. It focuses only on title. EPA cannot have intended this unpublished directive to reverse the position it had taken in its published Notice of Intent just the month before. Likewise, such a blanket approach contradicts the case-by-case review it had just publicly stated it would undertake in the Notice of Intent. The application of the definition of 'facility' to Federal lands subject to lease is thus a

important policy consideration that EPA has recognized since the HSWA rules were promulgated, but which have been 'on hold' since 1986.

Regulating agencies should examine actual control exercised by DOE over leased lands.

Like EPA, Ecology also included the 100-acre parcel as part of the facility on the grounds that it is 'under the control' of DOE. This was a clearly erroneous finding of fact, because the phrase 'under the control' has been interpreted to require actual exercise of control; but DOE exercises no actual control over the parcel.

EPA previously has asserted in its Response to Comments on page 55-57 that DOE had sufficient rights under the terms of the lease to US Ecology, Inc. to exercise control. This conclusion is based mainly on the provisions that reserve to DOE the right of access to the site for all reasonable Amendments to the Sublease. Actually, the structure of the agreement contemplates that the State or its sublessee will care for and maintain the property, and that the DOE acting under its reserved rights will not carry out such activities.

EPA has faced when the issue of determining when contractual rights give a party 'control' in another context. In the CERCLA Lender Liability Rule, EPA was defining the level of 'participation in management' necessary to establish ownership by a security interest holder. EPA there determined that participation in management "does not include the mere capacity to influence, or ability to influence, or unexercised right to control facility operations" 40 CFR 300.1100(c)(1). EPA there reasoned that unexercised contractual rights do not constitute control. While that rule was later vacated as beyond EPA's delegated powers under CERCLA, its rationale was sound and should apply here.

EPA also ignored another factor cited in its 1986 Notice of Intent, the "amount of benefit the agency derives" from the activity on the leased premises. Here DOE derives no benefit at all from the US Ecology, Inc. activities. The original lease with the State of Washington commenced in 1964 and fixed rent at \$600 per year for 99 years. The sublease to US Ecology, Inc.'s predecessor was not executed until 1976, and all rent and other payments under it flow to the State. Applying this factor, it would be inequitable to treat DOE as controlling the US Ecology, Inc. site and thereby be required to include it in the Permit for the purposes of corrective action.

Under the terms of Condition II.Y.4.a.iv, the Permittee, DOE, would be required to take corrective actions for SWMUs for which it is not responsible and has no privity of contract, lease, license or right to control other than by mere land ownership. US Ecology, Inc., lessee and licensee to the State of Washington, has no privity of contract with the DOE. The control of US Ecology, Inc. is at the hand of the State of Washington through a lease, radioactive materials license, and environmental regulations, such as, the MTCA. There is no contractual mechanism by which DOE can force participation of US Ecology, Inc., in any corrective action. DOE would have to persuade the State of Washington to take action against the State's lessee, licensee.

As a policy matter, it is inappropriate to require DOE to take responsibility for, or come onto a site that has been independently regulated for the purpose of protection of public health, safety and the environment by a license issued pursuant to the AEA, as amended, in an agreement by the Washington State Department of Health. Imposition of corrective action responsibilities for such a licensed facility on the DOE, who is not a party to the licensed activity and does not control the activity, is inappropriate from both legal and policy standpoints. EPA and Ecology could not expect any corrective action imposed could take place in a timely and effective way.

EPA and Ecology should recognize that US Ecology, Inc., is not 'under the control' of the Hanford Facility for which DOE is responsible and should exclude it from the Permit conditions for purposes of corrective action. In the alternative, if Ecology is looking for a responsible party, it should look to the

State of Washington whereby, the State of Washington becomes a Permittee to the Corrective Action Portion of the Permit responsible for any required future corrective actions at the US Ecology, Inc., site. To the extent there is any issue of contamination at the US Ecology, Inc.; facility; EPA and Ecology have ample authority under CERCLA and MTCA, as well as under the US Ecology, Inc. Radioactive Materials License to require cleanup by the State of Washington lessee. EPA and Ecology should not force this property into an inappropriate RCRA corrective action pigeonhole. Refer to Comment Justification for Comment Number 12, the definition of SWMU also applies.

Ecology Response: Ecology disagrees with the requested action as discussed below.

EPA and Ecology have made clear that, because the US Ecology site is contiguous to the Hanford Facility (indeed it is surrounded by it) and owned by the USDOE, it is within the meaning of the definition of Facility for purposes of corrective action. As the Commenter points out, EPA has, on a number of occasions requested comment, or ventured proposals to address, the definition of Facility for corrective action differently, at Federal Facilities specifically, and at private facilities where an owner leases land to un-related operators (e.g., as often happens at industrial parks). However, in the absence of a final action on the part of EPA, the Agency has made clear that it considers leased lands to be "under the control" of the owner/ operator for purposes of corrective action and that the Federal Agency owning these lands may be responsible for corrective action. (See, e.g., 61 FR 19442 / 3 (May 1, 1996); 55 FR 30808 / 2 (July 27, 1990); 64 FR 54606/3 and 54607 (October 7, 1999); and, addressing the issues raised in the March 5, 1986, Federal Register notices directly, OSWER Directive 9502.00-2 (April 18, 1986).) EPA Region 10 has made it clear that it expects Ecology to implement the definition of Facility for purposes of corrective action in a way that is consistent with current Federal guidance.

Ecology is not unsympathetic to the argument that cleanup at the US Ecology site should be primarily the responsibility of US Ecology Inc., and carried out using the ongoing closure process administered by the Washington State Department of Health. We must, however, operate within the confines of our authorized corrective action program and EPA Region 10's guidance on the definition of Facility for purposes of corrective action. In an attempt to balance the conflicting views about cleanup of the US Ecology site, we have delayed a decision about the site-specific requirements for corrective action at the US Ecology site until after the ongoing investigation of the site is complete. Ecology has participated actively in the ongoing investigation of the US Ecology site and has worked closely with the Department of Health on the investigation requirements. Following completion of the investigation, it may be appropriate for Ecology to determine that no corrective action is necessary at the US Ecology site. Alternatively, Ecology might further postpone the decision about site-specific requirements for corrective action at the US Ecology site until after further investigation or remedial action that might be directed by the Department of Health. Based on our current knowledge of the US Ecology site and the ongoing investigation, we consider it very unlikely that the USDOE will be required to take any action under the Permit at US Ecology. We cannot, however, at this time remove the US Ecology site from the definition of Facility for purposes of corrective action, or make a final decision about site-specific corrective action requirements at the US Ecology site. We understand that expecting the USDOE to implement a cleanup action at the US Ecology site is anathema to both the USDOE and US Ecology. We are committed to continuing to work with the Commenter, US Ecology, EPA and the Department of Health to resolve cleanup issues at the US Ecology site to the satisfaction of all parties.

In developing the proposed permit conditions, our intent was to mimic the standing arrangement between the Permittee and EPA Region 10 to delay any argument about corrective action jurisdiction at US Ecology, and to delay enforcement of corrective action requirements at US Ecology against the USDOE, until after a decision is made about the need (or lack of need) for specific corrective action activities at the US Ecology site. At a minimum, this decision cannot be made until after completion of the ongoing investigation of the US Ecology site, referenced above. We are persuaded that the permit conditions for US Ecology should be clarified to more explicitly reflect this intent, and we have made

appropriate modifications by removing language that might have been read as establishing a requirement for the USDOE to immediately begin investigating solid waste management units at the US Ecology site. These changes do not modify the substance of the proposed permit conditions.

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| 35. Condition II.Y.4.b.
Newly Identified Solid Waste
Management Units and Newly
Identified Releases of Dangerous
Waste or Dangerous Constituents | Key Comment: Conflicts with CERCLA, the FFACO, or the Permit (HSWA Portion); unreasonable, unfair, redundant, or unnecessary |
|--|---|

Draft Permit Conditions as proposed by the Department of Ecology: The Permittee must notify Ecology of all newly-identified solid waste management units and all newly-identified significant releases of dangerous wastes or dangerous constituents at the Facility. For purposes of this Condition, a "newly-identified" solid waste management unit and a "newly-identified" significant release of dangerous waste or dangerous constituents is a unit or significant release not identified in the FFACO, as amended, on the effective date of this Permit and not identified by Condition II.Y.4.a. Notification to Ecology must be in writing and must occur no more than thirty calendar days after the date of discovery. At a minimum, notification must include the information listed in WAC 173-303-806(4)(a)(xxiii) and WAC 173-303-806(4)(a)(xxiv).

Condition Impact Statement: This condition would create a redundant notification requirement inconsistent with provisions agreed to in the FFACO.

Requested Action: Revise the Permit condition to read: "The Permittee must notify Ecology of all newly-identified solid waste management units and all newly-identified significant releases of dangerous wastes or dangerous constituents at the Facility. For purposes of this Condition, a 'newly-identified' solid waste management unit or a 'newly-identified' significant release of dangerous waste or dangerous constituents is a unit or significant release not identified in the FFACO, as amended, on the effective date of this Permit and not identified by Condition II.Y.4.a. Notification to Ecology shall be accomplished by entry of the unit or release into the Waste Information Data System required by the FFACO".

Comment Justification: Section 3.5 of the FFACO Action Plan establishes the Waste Information Data System (WIDS) as the database for maintaining information on waste management units (including unplanned release sites). Ecology personnel have been directly involved in the development of procedures, pursuant to the FFACO, for entering new sites into the WIDS. Ecology already has electronic access to the entire WIDS database. The draft Permit condition represents a redundant reporting requirement that would be costly and administratively burdensome with no attendant benefit.

Ecology Response: Ecology disagrees with the requested action as discussed below.

Adding newly identified solid waste management units and areas of concern to the Waste Information Data System does not ensure that Ecology is given all the information required by WAC 173-303-806(4)(a)(xxiii) and WAC 173-303-806(4)(a)(xxiv). We are persuaded that, in most cases, it is appropriate to allow this additional information to be submitted to Ecology on an annual basis. Therefore, we have changed the proposed permit condition (final Condition II.Y.3.b.) to read: "The Permittee must notify Ecology of all newly-identified solid waste management units and all newly-identified areas of concern at the Facility. For purposes of this Condition, a 'newly-identified' solid waste management unit or a 'newly-identified' area of concern is a unit or area not identified in the FFACO, as amended, on the effective date of this Condition and not identified by Condition II.Y.3.a. Notification to Ecology must be in writing and must include, for each newly identified unit or area, the information required by WAC 173-303-806(4)(a)(xxiii) and WAC 173-303-806(4)(a)(xxiv). Notification to Ecology must occur at least once every calendar year no later than December 31, and

must include all units and areas newly identified since the last notification. If a newly identified unit or area may present an imminent and substantial endangerment to human health or the environment, notification must occur within five days of identification of the unit or area. If information required by WAC 173-303-806(4)(a)(xxiii) or WAC 173-303-806(4)(a)(xxiv) is already included in the Waste Information Data System, it may be incorporated by reference into the required notification." Note also that we have elected to use the term "area of concern" which is a defined term under the proposed permit conditions, rather than the language "significant releases." We believe the term area of concern is less ambiguous and that its use will streamline implementation of this condition. See final permits Condition II.Y.3.b.

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36. Condition II.Y.5 **Key Comment** Conflicts with CERCLA, the FFAO, or the Permit (HWSA Portion), exceeds regulatory authority, unreasonable, unfair, redundant, or unnecessary, creates potential conflict with EPA requirements

Draft Permit Conditions as proposed by the Department of Ecology: Within one hundred and eighty (180) days after the effective date of this Permit Condition, the Permittee must submit to Ecology for review and approval, completed "documentation of environmental indicator determination" forms in accordance with the February 5, 1999 environmental indicator guidance issued by the U.S. Environmental Protection Agency and, as requested by Ecology, any additional information or analysis necessary to support environmental indicator determinations. Following review of the Permittee's submittal, Ecology will make the final environmental indicator determination for the Facility and will notify the Permittee, in writing, of the determination and record the determination in the RCRA Information System (RCRIS) Database. Following Ecology's environmental indicator determination, the Permittee must notify Ecology, in writing, any time he / she believes the environmental indicator determination for the facility has changed (e.g., changed from an IN, insufficient information, to a YES, environmental indicator achieved) and must update the "documentation of environmental indicator determination" forms to reflect new information and cleanup progress at least once every two years.

Condition Impact Statement: This condition will require additional reporting not currently budgeted for planned cleanup.

Requested Action: Delete this condition.

Comment Justification: This condition tasks DOE as a Permittee to provide information sought by EPA (as opposed to Ecology), information whose sole purpose is to measure EPA's corrective action program against national goals set internally by EPA. This program, while in fulfillment of a mandate from Congress to show measurable progress, is a mandate levied on EPA, not on any permit holder, and certainly not on CERCLA facility owners such as DOE. There is no law or regulation that places on DOE or its contractors a duty to gather and format information in the manner being sought by EPA. This condition places enforceable requirements on DOE and the contractors without a regulatory basis.

Ecology Response: Ecology disagrees with the Commenter's arguments but, for reasons discussed below, has taken the requested action.

The proposed condition requires the Permittee to report on the corrective action status of the Facility relative to ongoing risks to human health and ongoing migration of contaminated ground water. These reports will allow Ecology (and EPA) to assess whether the Federal environmental indicators for corrective action and CERCLA cleanups have been met at the Facility and, more importantly, to assess whether human health is protected at the Facility and whether contaminated ground water is migrating at the Facility.

The Commenter asserts that this condition "conflicts with CERCLA, the FFAO, or the HWSA portion

of the permit, that it exceeds regulatory authority, that it is unreasonable, unfair, redundant or unnecessary, and that it creates potential conflict with EPA requirements.” In the comment justification, however, the Commenter offers no information or explanation as to how the proposed permit condition conflicts with CERCLA or the FFACO, or how it creates a potential conflict with EPA requirements or with the HSWA portion of the Permit. The Commenter focuses on his/her belief that this reporting is properly and exclusively the responsibility of EPA and/or Ecology, and that there is no basis in regulation for requiring the Permittee to report on corrective action progress at a facility and to format the report in the specified manner.

Ecology disagrees. In implementation of the corrective action program, Ecology routinely requires reports on corrective action progress. Likewise, EPA routinely requires reports on corrective action progress.

Neither the State nor the Federal governments have published detailed regulations establishing a process for implementation of corrective action. Regulations that establish the scope of corrective action requirements (generally, all releases at and from a facility) and a performance standard that all corrective actions must meet (protection of human health and the environment). The site-specific details of corrective action, such as how an investigation is to be conducted, how remedial alternatives are to be evaluated, how cleanup standards are set or specify cleanup actions are chosen as necessary to protect human health and the environment; in the absence of detailed regulations, these decisions are typically informed by guidance.

Using the Commenter's argument that, without a specific regulatory requirement, Ecology cannot impose reporting requirements as part of implementing the corrective action program, Ecology would similarly be unable to require RCRA Facility Assessments, reports of RCRA Facility Investigations, alternative analyses, or reports on construction and progress as remedies are implemented. This position is not supported by existing agreements, including the FFACO, in which the Permittee agreed to provide, among other reports, RFAs and reports of facility investigations.

It seems, then, that the Commenter does not object to reporting requirements per se, but, rather to reporting this information on environmental progress at the Facility in the requested format.

Guidance on implementation of environmental indicators is still emerging at the Federal level. However, even now, some things are clear. First, EPA expects state agencies to report on environmental progress in the corrective action program using the corrective action environmental indicators. Second, the environmental indicators for corrective action must be reported for Federal Facilities. Third, environmental indicators for corrective action will also be used to report, in part, environmental progress at facilities being cleaned up under CERCLA. And, fourth, the environmental indicator assessments are “facility-wide,” that is, they must consider the entire facility for purposes of corrective action.

In considering how best to administer the environmental indicators at Hanford, Ecology considered especially this facility-wide requirement. Because of the large size of the Hanford Facility, the many releases and potential releases and the work sharing agreements between Ecology and EPA, it is likely that there is no single person in either agency who will have the type of first-hand knowledge necessary to document environmental indicators assessments for the entire Facility. We also considered the nature of the environmental indicators. The two indicators are: current human exposures under control and migration of contaminated ground water under control. These are basic statements of the environmental conditions at a facility and, we believe, properly within the range of information facility owners/operators should know to ensure protection of human health and the environment. And, we considered that the environmental indicators are meant to be real-time reflections of conditions at a facility and the need, therefore, to update the indicator information as conditions at a facility change over time.

We continue to believe that it is reasonable, and necessary to protect human health and the environment, for the Permittee to understand environmental conditions at the Facility, including to understand whether unacceptable risks to humans and migration of contaminated ground water are under control. We also continue to believe that it is reasonable to expect the Permittee to report on these environmental conditions. However, we understand that EPA and the other Federal Agencies and Departments, at the National level, are discussing implementation of the Federal environmental indicators at Federal Facilities with a view towards establishing environmental indicator policy. In addition, during discussions with the USDOE/RL about the proposed environmental indicator permit conditions, we were assured that the USDOE/RL would provide timely information about unacceptable human exposures and migration of contaminated ground water, even if provision of such information were not a permit requirement. Therefore, at this time, we have decided to request information on environmental indicators informally (i.e., without corresponding permit conditions). If our informal request results in provision of adequate information, we may consider continuing to track and obtain environmental indicator information informally. If we do not receive adequate or timely information, or if Federal environmental indicator policy recommends including environmental indicator conditions in permits, we may choose to initiate a permit modification to establish conditions requiring the Permittee to report environmental indicator information.

Comments on proposed Corrective Action Applicability Matrix, Permit Applicability Matrix

37. **Each Page: Part I through Part VI Footnotes**

Key Comment: N/A

Draft Permit conditions as proposed by the Department of Ecology: The Department of Ecology omitted footnotes from all pages of the Permit Applicability Matrix. The Department of Ecology also added a superscript to Part II.A through VI.

Condition Impact Statement: Removing the footnotes provides the public with incomplete information on the categories that the Permit applies. Adding the superscript to Part II.A through VI incorrectly represents the Permit Applicability Matrix because the superscript 'footnotes' only apply to Part I Permit Conditions.

Requested Action: Remove superscripts from Part II.A through Part VI, and restore the footnotes to each page as in previous revisions for the Permit as follows:

Part I requires footnote:

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.

Part II through VI footnote:

CATEGORIES ARE DEFINED AS FOLLOWS:

- | | |
|----------------|----------------------------------|
| A. Leased Land | E. TSD Unit Closures (in Part V) |
|----------------|----------------------------------|

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

Comment Justification: The superscripts and footnotes were omitted in error. The superscripts only apply to Part I; and do not apply to Parts II through VI. The footnote information on the Categories is needed to define applicability of the Permit to Hanford Facility activities.

Ecology Response: Ecology agrees with the requested action, the superscripts and footnotes have been returned to the Applicability Matrix as requested.

38. Page 9, Part II.Y.

Key Comment: exceeds regulatory authority

Draft Permit conditions as proposed by the Department of Ecology: A (*) denoting that this Condition and its sub-conditions apply to interim status TSD units has been added to the table.

Condition Impact Statement: This change would assign applicability of final status corrective actions to interim status TSD units.

Requested Action: Remove designation (*) for category "C".

Comment Justification: Final status standards are not applicable to interim status TSD units in accordance with WAC 173-303-400. Corrective Action considerations will be addressed for these TSD units in Parts III, V, or VI.

Ecology Response: Ecology disagrees with the requested action as discussed below.

Dangerous waste treatment, storage and disposal units, whether operating under interim status, operating under a permit, closed or closing, are solid waste management units and are subject to corrective action. While the specific operating (or closure or post-closure care) conditions for these units may be specified in Parts III, V, or VI of the Permit, we continue to believe that it is appropriate to establish the general conditions governing corrective action now, and to immediately apply the general conditions to all ongoing corrective action work (i.e., to apply them to corrective action work that has been included in the Permit and to corrective action work that is occurring at units that have not yet been incorporated into the Permit and continue to operate under interim status). This is analogous to the approach Ecology used when establishing Permit requirements for closure and post-closure.

39. Page 9, Part II.Y.4.a

Key Comment: exceeds regulatory authority

Draft Permit conditions as proposed by the Department of Ecology: A (*) denoting that this Condition and its sub-conditions apply to interim status TSD units, areas between units, final status units, closure units, and post-closure units has been added to the table.

Condition Impact Statement: This change would assign applicability of actions to be taken at the disposal site leased to the Department of Ecology to interim status TSD units, areas between units, and other Hanford Site units.

Requested Action: Delete this condition and associated line item in the applicability matrix. If the comment to delete is not accepted, remove designation (*) for category "C", "D", "E", "F", and "G".

Comment Justification: The Department of Energy disagrees with the inclusion of the US Ecology,

Inc. disposal site in the Permit (refer to comment on proposed Condition II.Y.4.a. elsewhere in this comment package.) Final status standards are not applicable to interim status TSD units, in accordance with WAC 173-303-400. It is clear from the language in Condition II.Y.4.a. and its sub-conditions that the actions to be taken pertain only to the US Ecology site leased to the State of Washington. Corrective Action considerations, if any are required, would be addressed in Part IV as described in the draft modification to the Introduction and elsewhere in the proposed modification. Any resulting effects on other parts of the Hanford Site would be expressed as a part of that set of conditions, and not as part of Part II Conditions.

Ecology Response: Ecology disagrees with the requested action. As discussed in our responses to comment number 10, the portion of the Hanford Facility that the USDOE leases to US Ecology Inc., is properly within the meaning of "Facility" for purposes of corrective action.

40. Page 10, Part III.8.A

Key Comment: N/A

Draft Permit conditions as proposed by the Department of Ecology: Central Waste Complex (CWC) Facility Compliance with Approved Permit Application.

Condition Impact Statement: An incorrect TSD unit title will lead to confusion regarding applicability of the Permit.

Requested Action: Change title of TSD unit to "Central Waste Complex".

Comment Justification: The Department of Ecology has added a line item to the table with a title for the Central Waste Complex TSD unit inconsistent with Part III and Attachment 27.

Ecology Response: As discussed in the introduction to this Responsiveness Summary, Ecology will respond to comments regarding the Central Waste Complex as part of the Modification E Responsiveness Summary.

41. Page 12, Part IV

Key Comment: exceeds regulatory authority

Draft Permit conditions as proposed by the Department of Ecology: Asterisks (*) denoting that this Condition applies to leased land, ALE and the North Slope, interim status TSD units, areas between units, final status operational units, units undergoing closure, and units in post-closure have been added to the table.

Condition Impact Statement: This change would appear to assign blanket applicability of final status corrective actions specified in Part IV to interim status TSD units and Facility-wide.

Requested Action: Remove designation (*) for all categories.

Comment Justification: Final status standards are not applicable to interim status TSD units in accordance with WAC 173-303-400. Corrective Action considerations will be addressed for these TSD units in Parts III, V, or VI. It is confusing to imply that all corrective actions named in Part IV conditions apply site-wide. This row should be left blank, and applicability noted for each individual set of corrective action units. This would be consistent with the way applicability is described for units incorporated in Parts III, V, and VI of the Permit and would reduce confusion.

Ecology Response: Ecology disagrees with the requested action as discussed below.

As discussed in our response to comment number 10, the US Ecology site, the ALE and the North Slope are all properly included in the definition of Facility for purposes of corrective action. As discussed in our response to comment 38, we continue to believe that it is appropriate to establish the

general conditions governing corrective action now and to immediately apply the general conditions to all ongoing corrective action work at the Facility (i.e., to apply them to corrective action work that has been included in the Permit and to corrective action work that is occurring at units that have not yet been incorporated into the Permit and continue to operate under interim status). This is analogous to the approach Ecology used when establishing closure and post-closure requirements.

42. Page 12, Part IV.1 and .2

Key Comment: N/A

Draft Permit conditions as proposed by the Department of Ecology: Asterisks (*) denoting that these Conditions apply to areas between units have been added to the table.

Condition Impact Statement: This change would appear to assign blanket applicability of final status corrective actions specified in Part IV to all areas between units Facility-wide.

Requested Action: Add qualifier text in the right column to indicate that the applicability of each unit's conditions to areas between units is limited to those areas described in the approved Corrective Measures Study.

Comment Justification: It is confusing to imply that all corrective actions named in these units' Part IV conditions apply Facility-wide to areas between units. Qualification would reduce confusion.

Ecology Response: Ecology disagrees with the requested action as discussed below.

As discussed in our response to comment number 38, we continue to believe that it is appropriate to establish the general conditions governing corrective action now and to immediately apply the general conditions to all ongoing corrective action work at the Facility (i.e., to apply them to corrective action work that has been included in the Permit and to corrective action work that is occurring at units that have not yet been incorporated into the Permit and continue to operate under interim status). This is analogous to the approach Ecology used when establishing closure and post-closure requirements. We note specifically that it is necessary to include the entire Facility, first because of the definition of Facility for purposes of corrective action, and second, to ensure that any newly identified solid waste management units and areas of concern are properly reported.

43. Page 11, Part V.21

Key Comment: N/A

Draft Permit conditions as proposed by the Department of Ecology: 2401-W Waste Storage Building Compliance with Approved Modified Closure Plan

Condition Impact Statement: This condition would establish confusion regarding the type of closure plan contained in the Permit.

Requested Action: Delete line item Part V.21 in Applicability Matrix based on Comment Number 1 in Comments on the Proposed Modifications to Part V, Chapter 21, 2401-W Waste Storage Building (previously submitted) regarding the inappropriate incorporation of this closure plan into Part V of the Permit.

Comment Justification: Based on Comment Number 1 in Comments on the Proposed Modifications to Part V, Chapter 21, 2401-W Waste Storage Building (submitted on 12/6/99), it is inappropriate to locate the 2401-W Waste Storage Building Closure Plan in Part V of the Permit.

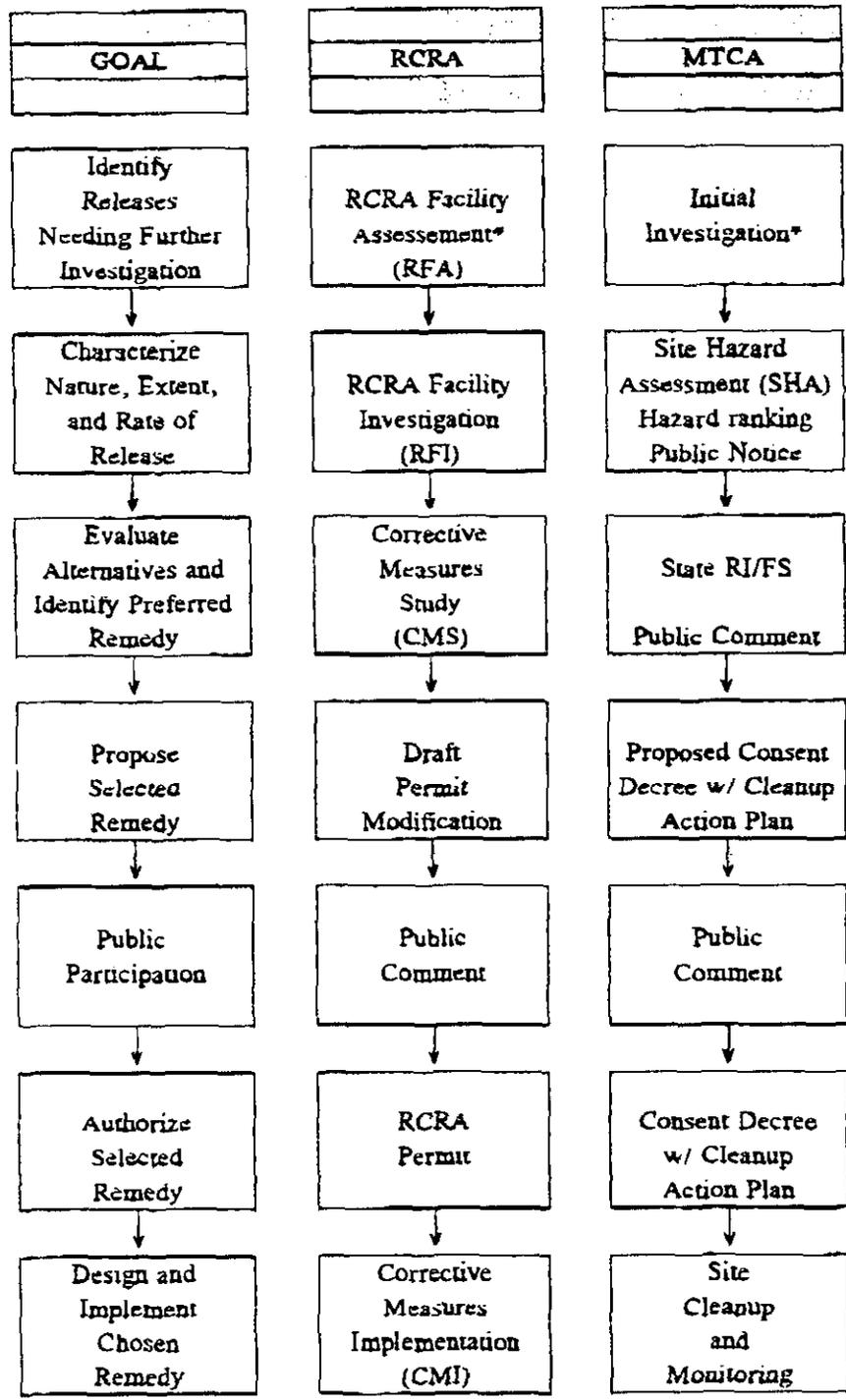
In addition, the 2401-W Waste Storage Building is not a Modified Closure Plan. A Modified Closure Plan is a plan developed to meet modified closure provisions in Permit Condition II.K, Dangerous Waste Portion. The 2401-W Waste Storage Building Closure Plan indicates clean closure of the 2401-W Waste Storage Building. It is inaccurate to reference this closure plan as a Modified Closure Plan.

Ecology Response: As discussed in the introduction to this Responsiveness Summary, Ecology will respond to comments regarding 2401-W as part of the Modification E Responsiveness Summary.

Attachment 1

**Comparison of RCRA Corrective Action
and MTCA Clean-up Process**

**COMPARISON OF RESOURCE CONSERVATION AND RECOVERY ACT CORRECTIVE ACTION
AND MODEL TOXICS CONTROL ACT CLEAN-UP PROCESS**



* Note: Interim measures can be performed at any point in the process to reduce imminent threats to human health or the environment, and to minimize the further spread of contamination.

Attachment 2

**Letter Re: Corrective Action Information
Requirements in Permits**



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

P.O. Box 47600 • Olympia, Washington 98504-7600 • (206) 407-6000 • TDD Only (Hearing Impaired) (206) 407-6006

March 24, 1994

Ms. Kris Backes
Association of Washington Business
Post Office Box 658
Olympia, WA 98507-0658

Dear Ms. Backes:

Re: Corrective Action Information Requirements in Permits

Thank you for your continued input regarding corrective action implementation and the requirements for corrective action information in permits. In response to your concerns, I have added revisions to the corrective action information submittal requirements language at WAC 173-303-806(4)(a)(xxiii) to our next rule-making agenda. The language at WAC 173-303-806(4)(a)(xxiii) will be revised to explicitly state that release reporting requirements for corrective action, in conformance with the applicability of corrective action articulated at WAC 173-303-646(2), apply only to the extent known releases are determined to be a threat or potential threat to human health and/or the environment.

I anticipate that the next amendments to the dangerous waste regulations will begin after completion of the State-Only Study in September, 1994. In our experience, the regulation amendment process takes 18 to 24 months to complete. In the interim, please refer to my letter of February 2, 1994 and the Toxics Cleanup Program's Policy 101 for Ecology's interpretation of the reporting requirements.

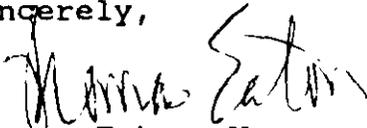
Regarding your specific inquiry as to Ecology's expectations for sampling. Ecology does not expect that releases will be routinely sampled specifically to determine reporting responsibility under WAC 173-303-806(4)(a)(xxiii); however, we anticipate that in some circumstances (e.g. response to a spill) sampling will occur either at the discretion of the facility owner/operator or in response to other regulations such as WAC 173-303-145. The reference to sampling in my February 2, 1994 letter was only to emphasize that, when available, such

Ms. Kris Backes
March 24, 1994
Page 2

analytical data could be applied to decisions regarding reporting responsibility under -806(4)(a)(xxiii). Additionally, in circumstances where Ecology and a facility owner/operator disagree as to whether or not a release posed a potential threat to public health or the environment, Ecology might require sampling of the release in question as part of a facility assessment and/or remedial investigation to resolve the disagreement.

Ecology is looking forward to the cooperation and continued input as we begin to implement our innovative corrective action program. Please contact me at (207)407-6702 or Elizabeth McManus, of my staff, at (206) 407-6707 if you have any additional questions or concerns.

Sincerely,

A handwritten signature in black ink, appearing to read "Thomas Eaton". The signature is written in a cursive style with a large initial "T".

Thomas Eaton, Manager
Hazardous Waste and Toxics Reduction Program

TE:EM:cr

JAN 24 1994

Tosco Northwest Company
A Division of
Tosco Corporation
Ferndale Refinery
3901 Umick Road
P.O. Box 8
Ferndale, WA 98248
(206) 384-8462

January 20, 1994

Mr. Tom Eaton, Supervisor
Hazardous Waste Section
Department of Ecology
P.O. Box 47600
Olympia, WA 98504-7600

Regulation Reform and New Section
WAC 173-303-806 (4)(a)(xxiv)
File 6.4.3.1.1.

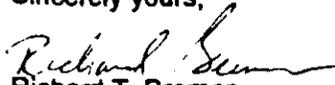
Dear Mr. Eaton:

Attached, please find a copy of AWB's memorandum of January 12, 1994, New Corrective Action Requirements. Ms. Darling's sense of alarm is shared by Tosco Northwest Company, Ferndale Refinery. We are a TSD and have been through the agony of the Part B Permit process. It took more than 4 years and cost over \$2 million. Almost all of this expenditure was for detailed information to prove that long standing waste management practices were not ending in groundwater contamination. Subsoil investigations are continuing to this day via the corrective action power in the regulations, circa 1989.

You should recall that in 1991, WDOE revised WAC 173-303-145, Spills and Discharges to require immediate reporting with no "de minimis." The sweeping language of the 1991 subsection -145 opened the flood gates of reporting trivial releases and had to be changed again in 1992. The requirement of extensive immediate notifications, regardless of quantity was counter productive vis a vis environmental protection gains then and much the same thing is being repeated now at the new section of WAC cited above.

Regulation reform is needed in this situation, there must be a "de minimis" allowable. Neither the WDOE nor the regulated community are served by new WAC 173-303-806(4)(a)(xxiv). Washington State needs TSDs and WDOE is ill advised to further complicate the Part B permit process. The existing permit process is barely working. Please advise your colleagues in permits that new -806(4)(a)(xxiv) may well mire them in a level of detail that will preclude ever issuing another Part B Permit.

Sincerely yours,


Richard T. Bremer
Environmental Coordinator
Tosco Northwest Refinery

regref3/rb
CC: GEG, GAS



Association of Washington Business
P.O. Box 658
Olympia, Washington 98507-0658
(206) 943-1600

Tacoma 272-6444
Statewide 1-800-521-9325

Seattle 824-2910
FAX 943-5811

Your statewide
business advocate

Memorandum

TO: Hazardous Substances Committee
FROM: Nancy Darling, Chair (206/483-1448)
DATE: January 12, 1994
SUBJECT: New Corrective Action Requirements

The Department of Ecology (Ecology) recently released the Responsiveness Summary for Amendments to the Dangerous Waste Regulations, Chapter 173-303 WAC, dated October 1993. Ecology's responses to many of business's comments were somewhat mixed but in particular there is concern over Ecology's treatment of corrective action. Treatment, storage and disposal (TSD) facilities need to be aware of these new requirements.

Ecology's proposed amendments included an expansion of the corrective action program over the federal requirements. EPA requires all facilities who are applying for a Part B permit to identify solid waste management units (SWMUs) that may be subject to corrective action. EPA defines a SWMU as a discernable unit which has had routine and systematic placement of waste. Ecology's proposal is to apply corrective action to all known releases, not just SWMUs. Ecology also proposed using both dangerous waste and the MTCA hazardous substances list (which includes petroleum products) to determine when a release has taken place. The business community recommended that Ecology not adopt more comprehensive requirements than the federal program, at least until the department had determined how they would implement these requirements and what the impact would be to business.

The business comments were not incorporated into the final regulations. Instead Ecology has included a new section, WAC 173-303-806(4)(a)(xxiv), which requires TSDs to provide information in a Part B application on any and all known releases of a dangerous waste or dangerous constituent. In other words, Ecology is requiring TSDs to report, in writing, all releases regardless of whether they pose a threat to human health and the environment. There is no *de minimis*. This means that any spill, drip, or discharge, no matter how insignificant, would have to be identified, located, and described in writing and submitted to Ecology. This includes any spill that has been cleaned up and/or was

Hazardous Substances Committee
January 12, 1994
Page 2

determined to be unreportable under WAC 173-303-145. As written, this would include such things as oil or antifreeze drips from automobiles or overspray from a painting operation.

The effort involved for meeting the corrective action requirements would not only be very expensive for TSDs but would also be unlikely to result in better protection of human health and the environment.

This rule amendment could arguably be considered a significant change without adequate opportunity for public comment. This means a person could petition Ecology to reevaluate the corrective action section of the regulation within 45 days of rule adoption. If you have an interest in this issue or would support such an action by AWB, please let me know by calling me at (206) 438-1448 or by faxing me your opinion at (206) 493-0760.

ned

cc: Kris Backes



STATE OF WASHINGTON

DEPARTMENT OF ECOLOGY

P.O. Box 47600 • Olympia, Washington 98504-7600 • (206) 407-6000 • TDD Only (Hearing Impaired) (206) 407-6006

February 2, 1994

Ms. Kris Backes
Association of Washington Business
Post Office Box 658
Olympia, WA 98507-0658

Dear Ms. Backes:

Re: Corrective Action Information Requirements in Permits

Thank you for your and Nancy Darling's inquiry regarding hazardous waste permit information submittal requirements for corrective action. As I understand, your specific concerns fall into two areas: 1) Non-Solid Waste Management Units (SWMU) related information requirements in permit applications; and (2) Non-SWMU related information requirements during the permitted life of a facility. Each concern is addressed below; however, I want to emphasize that these new regulations do not expand the types of releases already required to be reported under federal and state law. The Department of Ecology's (Ecology) release reporting requirements are broader than federal requirements under RCRA because MTCA, which is being used as our basis for corrective action, does not include a SWMU concept and requires reporting of significant releases regardless of source.

Before getting into specifics, your concerns raise a more general question, that is, how does a regulatory agency balance between flexibility and predictability? In some circumstances, it is impossible for the Ecology to promulgate regulations which will adequately address the details of every site-specific situation. In such circumstances, broad regulatory language is meant to address a range of circumstances. This kind of flexible regulatory language allows Ecology and the regulated community to make site-specific determinations that accomplish the goals of legislation but fit the individual circumstances of each site. More prescriptive regulations, while being clear (i.e., any solid waste mixed with a dangerous waste, regardless of relative quantities, is automatically considered a dangerous waste) inevitably are applied to situations that don't make sense. Since we are in the midst of major efforts to reform regulations, I would like to discuss the flexibility/predictability balance

Ms. Kris Backes
February 2, 1994
Page 2

with you (and others) sometime to get a better idea of the business community's perspective.

Permit Application Information Requirements

Federal regulations at 40 CFR § 270.14(d) and State regulations at WAC 173-303-806(4)(a)(xxiii) require that permit applicants submit information on all SWMU at their facility. State regulations at WAC 173-303-806(4)(a)(xxiv) also require permit applicants to submit information on any and all known releases of dangerous waste and dangerous constituents not associated with SWMU at their facility. Information requirements for non-SWMU related releases stem from Ecology's decision to conduct corrective action in a manner consistent with the Model Toxics Control Act.

Regarding the specific concerns expressed in the memo from Nancy Darling dated January 12, 1994, WAC 173-303-646(2) specifies that corrective action is required only to the extent necessary to protect human health and the environment; therefore, it is necessary for facility owner/operators to submit information only on releases which might adversely impact human health and the environment. For example, if a facility had suffered a spill and the spill had been adequately remediated, reporting under -806(4)(a)(xxiv) would not be necessary; if a facility has on-going unpermitted releases, (i.e., an on-going release from piping associated with a processing or storage unit), reporting under -806(4)(a)(xxiv) would be expected. If sampling of a release were conducted and levels of dangerous constituents in all affected environmental media were below the calculated cleanup levels from the MTCA database, reporting under -806(4)(a)(xxiii) would not be necessary. Again, the purpose of -806(4)(a)(xxiv) is to ensure that corrective actions are consistent with the scope of existing MTCA cleanup requirements. Please refer to the Toxics Cleanup Program's policy on release reporting (Policy 101, copy enclosed) for additional guidance.

On-going Information Requirements

Reporting of newly discovered releases should follow the same logic as inclusion of releases information in permit applications. If a release will not adversely affect human health or the environment, reporting for corrective action purposes is not necessary.

Timing of release reporting, like timing for reporting of newly discovered SWMU, will be specified in permits. The EPA proposed information submittal requirements for SWMU in draft subpart S including proposed time frames of 30 days to report a newly

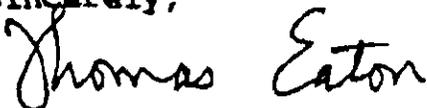
Ms. Kris Backes
February 2, 1994
Page 3

discovered or created SWMU and 20 days to report a new release from an existing SWMU (see 55 FR 30849). Ecology did not incorporate those standards because: (1) Much of the language is duplicative of the existing MTCA regulatory structure, and (2) The final subpart S regulations may differ from the existing draft. For consistency, Ecology will use the release reporting time frames in the Toxic Cleanup Program's policy on release reporting (Policy 101) as guidance when writing corrective action permit conditions.

Facility owner/operators are responsible for determining which releases could adversely affect public health or the environment. Ecology is responsible for ensuring that facility owner/operators accurately assess the potential health and environmental risks from releases; (i.e., if an operator concludes a 5000 gallon spill of methylene chloride is insignificant, we would take issue with it). Facility owner/operators who are in doubt about the significance of a release are encouraged to contact Ecology for assistance. In any case, Ecology is not interested in reports on open cans of paint, drops of antifreeze, or other such in significant releases.

I hope this satisfies your concerns regarding permit information requirements for corrective action. Ecology is looking forward to working with the regulated community to implement our innovative state corrective action program in a manner that is environmentally protective, cost effective, and efficient. If you have any questions regarding these or other corrective action issues, please contact me at (206) 407-6702 or Elizabeth McManus, of my staff, at (206) 753-8071.

Sincerely,



Thomas Eaton, Manager
Hazardous Waste and Toxics Reduction Program

TC:EM:cc
Enclosure

cc: Richard Bremer, Tosco Northwest Refinery
Nancy Darling, Hazardous Substances Committee

Enclosure 4

Letter Re: Changes from Modification D



50764

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

1315 W. 4th Avenue • Kennewick, Washington 99336-6018 • (509) 735-7581

June 2, 1999

Mr. James Rasmussen
U.S. Department of Energy
P.O. Box 550, MSIN: A5-15
Richland, Washington 99352

Dear Mr. Rasmussen:

Re: Deletion of Condition III.1.B.g. for 616 Nonradioactive Dangerous Waste Storage Facility, Dangerous Waste Portion of the Hanford Facility Resource Conservation and Recovery Act Permit for the Treatment, Storage, and Disposal of Dangerous Waste (Permit)

The Washington State Department of Ecology (Ecology) issued Revision 5 (Mod D) to the Permit on May 18, 1999. Since that date, Ecology has received information which would have justified application of a different Permit Condition. Specifically, due to the pending closure of the 616 Nonradioactive Dangerous Waste Storage Facility, and the fact that no waste is stored at this unit, nor are there any plans for waste to be stored at this unit, compliance with Condition III.1.B.g is not required. Ecology will formally delete Condition III.1.B.g during the next Permit Modification cycle (Mod E), due to be completed by December 31, 1999.

If you have any questions, please contact me at (509) 735-5715.

Sincerely,

Laura Ruud
Permitting Specialist
Nuclear Waste Program

LR:ld

cc: Dave Bartus, EPA
Doug Sherwood, EPA
Sue Price, FDH

Suzette Thompson, FDH
Administrative Record: Sitewide Permit

Enclosure 5

Letter Re: Changes from Modification D

50767



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

1315 W. 4th Avenue • Kennewick, Washington 99336-6018 • (509) 735-7581

June 10, 1999

Mr. James Rasmussen
U.S. Department of Energy
P.O. Box 550, MSIN: A5-15
Richland, Washington 99352

Dear Mr. Rasmussen:

Re: Corrections to the Dangerous Waste Portion of the Hanford Facility
Resource Conservation and Recovery Act (RCRA) Permit for the
Treatment, Storage, and Disposal of Dangerous Waste (Permit), Rev. 5.

The Washington State Department of Ecology (Ecology) issued Revision 5 (Mod D) to the Permit on May 18, 1999. Subsequently the following errors that need correction in this Revision were discovered.

1. Class 1 and Class¹ Modifications to Part IV, Chapter 1, 300 Area Process Trenches, from the quarter ending September 30, 1998, which were approved by Ecology on July 22, 1998, were not reflected in Mod D (enclosed). However, compliance with these approved Class 1 and Class¹ Modifications is required.
2. Permit Condition III.6.B.g., in Part III, Chapter 6, 325 Hazardous Waste Treatment Units, was erroneously modified during Mod D to include a closure date of 2-28-2000. This date should be omitted. However, we will revisit this Condition and clarify appropriate language during the next Permit Modification cycle (Mod E). Also, this Condition erroneously references Attachment 37; the correct reference should be Attachment 36.

Mr. James Rasmussen
June 10, 1999
Page 2

Ecology will update the Permit to reflect these corrections during the next Permit Modification cycle, due to be completed by December 31, 1999. Also, I encourage input from the Permittees on any corrections or suggestions to ensure the accuracy and improve the quality of the Permit.

If you have any questions, please contact me at (509) 736-5715.

Sincerely,



Laura Ruud
Permitting Specialist
Nuclear Waste Program

Enclosure

LR:ld

cc: Dave Bartus, EPA
Doug Sherwood, EPA
Mike McCoy, PNNL
Harold Tilden, PNNL
Sue Price, FDH
Suzette Thompson, FDH
Administrative Record: Sitewide Permit

Hanford Facility RCRA Permit Modification Notification Forms

for

Part VI, Chapter 1 and Attachment

300 Area Process Trenches

Page 1 of 4

Index

Page 2 of 4: Section 8.0, Attachment 31

Page 3 of 4: Section 8.0, Pages 8-3, 8-4, 8-7, 8-8, and 8-9

Page 4 of 4: Section 8.0, Pages 8-7, and 8-9

Hanford Facility RCRA Permit Modification Notification Form

Unit:
300 Area Process Trenches

Permit Part & Chapter:
Part VI, Chapter 1 [Section 8.0 of Attachment 31]

Description of Modification:

Deletion of obsolete requirements throughout Section 8.0, "Postclosure Plan" of Attachment 31 (*300 Area Process Trenches Modified Closure/Postclosure Plan*, DOE/RL-93-73, Rev. 1): The 300 Area Process Trenches achieved clean closure of the soil column. Therefore, no postclosure care requirements pertain to it. The current postclosure plan contained in Section 8.0 contains information on postclosure requirements for soil column contamination, such as inspections, maintenance, and security measures. It is requested that the information on soil column postclosure actions be deleted from the text of Section 8.0 to reflect clean closure. This section will continue to reflect postclosure care requirements due to groundwater contamination. Attachment 1 of this notification form contains a strikeout version of Section 8.0 that reflects these changes. Attachment 2 contains a clean copy of Section 8.0 with the text to be deleted removed. These changes will also cause Permit Condition VI.1.B.p to be obsolete because they pertain to security control associated with contaminated soil rather than groundwater.

Attachment 1 and 2 also reflect typo/administrative/information changes made through a class 1 modification.

Because closure has been completed and certified, Sections 1.0 through 7.0 and all Appendices of Attachment 31 should be deleted. These sections pertain to requirements that were applicable during closure of the 300 Area Process Trenches. This will prompt two changes in Part VI, Chapter 1 of the Permit. In VI.1.A, the following should be placed at the end of the paragraph: "The 300 Area Process Trenches achieved closure in May 1998 in accordance with the closure plan contained in Attachment 31 and Permit Conditions contained in this Chapter. Therefore, enforceable portions of the plan currently consist of those associated with postclosure care. These portions are Sections 8.2, 8.4, and 8.5." Also, various Permit Conditions are now obsolete. In VI.1.B, the following should be placed before the listing of Permit Conditions: "Closure activities were completed at the 300 Area Process Trenches in May 1998. Therefore, the only Permit Conditions currently applicable to this unit during postclosure care are VI.1.B.b, VI.1.B.i, VI.1.B.q, and VI.1.B.r.

Modification Class: ¹

please check one of the Classes:

Class 1	Class ¹ 1	Class 2	Class 3
			X

Relevant WAC 173-303-830, Appendix I Modification: Not explicitly listed.

Enter wording of the modification from WAC 173-303-830, Appendix I citation:

Not explicitly listed. A formal request to down grade this change to a Class ¹1 modification is requested by way of this notification.

Submitted by Co-Operator:

[Signature]

Reviewed by RL Program Office:

[Signature] 8-20-98

Reviewed and Approved by Ecology:

[Signature]
7/22/98

¹If the proposed modification does not match any modification listed in WAC 173-303-830 Appendix I, then the proposed modification should automatically be given a Class 3 status. This status may be maintained by the Department of Ecology, or down graded to ¹1, if appropriate.

Hanford Facility RCRA Permit Modification Notification Form

Unit:
300 Area Process Trenches

Permit Part & Chapter:
Part VI, Chapter 1 [Section 8.0 of Attachment 31]

Description of Modification:

The following changes represent administrative/informational changes to Attachment 31:

Page 8-3, Section 8.2.2, 2nd paragraph, last sentence: well inspection forms are used instead of a log book. The last sentence is revised to read as follows: "Problems and/or damage will be noted on the well inspection forms for tracking of repairs."

Page 8-4, Section 8.4, 2nd to last sentence: well inspection forms are used instead of a log book. The last sentence is revised to read as follows: "The maintenance plan is based on observations made and recorded in the well inspection forms during site inspections."

Page 8-4, Section 8.4.1, 1st sentence: well inspection forms are used instead of a log book. The 1st sentence is revised to read as follows: "...and/or problems noted in the well inspection forms during inspections..."

Page 8-4, Section 8.4.1, last sentence: well inspection forms are used instead of a log book. The last sentence is revised to read as follows: "Repairs to the four steel guard posts at each monitoring well will be made before the following inspection period and tracked on well inspection forms to completion."

Page 8-7, Section 8.5.5, first paragraph: delete "40 hours of" from the last sentence. Hazardous waste site operation training as provided by 29 CFR 1910.120 is not a 40 hour course. A similar change was made previously during closure activities in Section 7.7 through downgrading of a Class 3 to a Class 1 modification (approved by T.A. Wooley on May 13, 1998).

Page 8-7, Section 8.5.5, second bullet: delete "and the 200 East Area emergency control director by radio." This change reflects current emergency response to fires which is to notify the Hanford Fire Department only.

Page 8-8, Section 8.7: The telephone number listed is obsolete and has been deleted.

Page 8-9, Section 8.8, 2nd sentence: delete "closure plan" and replace with "postclosure plan".

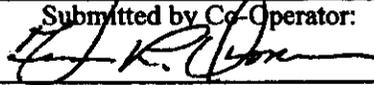
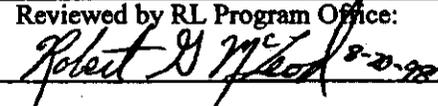
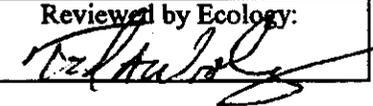
Modification Class: please check one of the Classes:	Class 1	Class 1	Class 2	Class 3
	X			

Relevant WAC 173-303-830, Appendix I Modification: A.1.

Enter wording of the modification from WAC 173-303-830, Appendix I citation:
Administrative and informational changes

Submitted by Co-Operator: 	Reviewed by RL Program Office: 	Reviewed by Ecology:
-------------------------------	------------------------------------	--------------------------

7/22/98

Hanford Facility RCRA Permit Modification Notification Form				
Unit: 300 Area Process Trenches	Permit Part & Chapter: Part VI, Chapter 1 [Section 8.0 of Attachment 31]			
<p><u>Description of Modification:</u></p> <p>Typographical errors in Section 8.0 of Attachment 31 have been corrected as follows:</p> <p>Page 8-7, Section 8.5.6: Section 8.4.1 is incorrect. The correct section is 8.5.1.</p> <p>Page 8-9, Section 8.8: The last sentence contains a typographical error on the figure number which should be Figure 7-4.</p> <p>The following is an "other change" to the training plan of Attachment 31:</p> <p>Page 8-7, Section 8.5.4, Training Director: delete this section as there are various organizations/individuals that are responsible for directing various aspects of training, depending on site contractor and type of training. This level of detail is not necessary in this plan. To eliminate the need to keep updating the section as organizations change, this section has been deleted.</p>				
Modification Class: please check one of the Classes:	Class 1	Class 1	Class 2	Class 3
	X			
Relevant WAC 173-303-830, Appendix I Modification: A.2.				
<u>Enter wording of the modification from WAC 173-303-830, Appendix I citation:</u> Correction of typographical errors. Changes in the training plan; other changes.				
Submitted by Co-Operator: 	Reviewed by RL Program Office: 	Reviewed by Ecology: 		

Hanford Facility RCRA Permit

Part VI, Chapter 2

300 Area Process Trenches

Page Changes

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1 **8.0 POSTCLOSURE PLAN**

2 Closure of a TSD unit with contamination remaining above clean closure levels but below MTCA (WAC
3 173-340-745) industrial HBLs is identified in the Hanford Facility Permit (Ecology 1994a) as modified
4 closure (Section 6.1.2.3). RCRA postremediation care of the unit will be required for modified closure
5 status.

6 The inspections, maintenance, and monitoring requirements are reflected in this section, which is
7 intended for use as the 300 APT postclosure permit application. Unit care will meet the conditions for
8 modified closure as presented in this chapter.

9 Condition II.K.3.c of the Hanford Facility RCRA Permit identifies the conditions of modified closure as
10 postclosure care and requires a postclosure permit application. This chapter is intended to be used as a
11 postclosure permit application.

12 **8.1 MODIFIED CLOSURE CARE REQUIREMENTS**

13 The conditions of modified closure status are intended to guide the unit through controlled and protective
14 transition period(s) of naturally declining contamination levels. The period(s) will end in the termination
15 of modified closure and the initiation of final closure. Until final closure, modified closure must meet
16 the requirements of institutional controls and periodic assessments of WAC 173-340-440 and -410,
17 respectively, as specified in the Hanford Facility Dangerous Waste Permit Conditions II.K.3.a and
18 II.K.3.b and the Postclosure Permit Application.

19 **8.1.1 Institutional Controls**

20 The institutional controls are required under WAC 173-340-440 during a period of modified closure to
21 ensure that control measures are maintained over time. These controls consist of physical measures and
22 administrative and legal mechanisms. Physical barriers provide physical control of activities that may
23 interfere with further remedial action or that may cause exposure to contamination at the site. As a legal
24 mechanism, a restrictive covenant will be placed in the deed describing the institutional controls. The
25 covenant will also prohibit site activities that interfere with cleanup, cause exposure to site
26 contamination, or release hazardous substances. The covenant will also require that Ecology be notified
27 of conveyance of interest in the property, or any proposal to use the site inconsistently with the covenant,
28 and that Ecology be granted reasonable access for inspection. This covenant will be removed from the
29 deed upon the termination of modified closure status and after a period of public notice and comment.

30 **8.1.2 Periodic Assessments**

31 Periodic assessments shall include a compliance monitoring plan in accordance with MTCA,
32 WAC 173-340-410. Compliance monitoring will primarily involve protection and confirmation
33 monitoring. This monitoring will ensure the continued effectiveness of modified closure in controlling
34 site contamination levels and protecting human health and the environment during the modified closure
35 period. This monitoring is necessary to confirm compliance by demonstrating that contaminant levels
36 found at time of closure have not increased.

37 As allowed by WAC 173-340-410, such monitoring may be combined with other plans or submittals.
38 Confirmation monitoring for groundwater may be combined with the current joint RCRA/CERCLA

1 program for the 300 Area. Protection monitoring is used to confirm that human health and the
2 environment are adequately protected during this period and may be addressed in safety and health plans.
3

4 Compliance monitoring will include routine visual inspections, maintenance, and groundwater
5 monitoring similar to that identified in the following sections. The compliance monitoring plan will also
6 include a timetable for performance of these activities. The plan shall provide for at least one assessment
7 activity that will be performed after 5 years to ensure that contamination has remained at previous
8 concentrations or has diminished in concentration. The plan will identify the nature and date of the
9 assessment activity as an anticipated year of final closure. The requirements for the assessment activity
10 will be contained in the CERCLA O&M Plan and its support documents.

11 The assessment activity could be composed of visual inspections of the site, evaluation of existing data
12 from the groundwater monitoring system, and/or other activities. If the contamination levels are shown
13 to be the same or less than at the time of closure, the permittees may request that Ecology reduce or
14 eliminate compliance activities, including institutional controls.

15 **8.2 INSPECTION PLAN**

16 This section describes compliance monitoring activities, security equipment, and inspections for well
17 conditions during a period of modified closure compliance monitoring. Table 8-1 lists the inspection
18 items and the inspection frequency for the postclosure care period. These inspections may be
19 implemented in checklist form. Such a checklist could specify entering checklist performance and
20 results in the appropriate inspection logbook.

21 **8.2.1 Security Control Devices**

22 Each of the groundwater monitoring wells has a locked cap to prevent unauthorized access and is
23 surrounded by four steel guard posts for visibility to prevent damage from vehicles. The overall well
24 condition, locks, guard posts, and pumps will be inspected during each sampling event. Problems and/or
25 damage will be noted on well inspection forms for tracking of repairs.

26 **8.2.2 Well Condition**

27 Inspection of groundwater monitoring wells will be carried out under internal procedure BHI-EE-01
28 (BHI 1995) or equivalent guidance. This procedure calls for a surface inspection of a well at each
29 sampling event. The procedure also calls for a subsurface inspection of the well at a minimum of every
30 3 to 5 years. This routine subsurface inspection may consist of pulling and inspecting the pump,
31 brushing the inner walls of the casing and screen, and conducting a down-hole television survey.

32 **8.3 GROUNDWATER MONITORING PLAN**

33 Groundwater monitoring, in accordance with MTCA, WAC 173-340, will be required as a condition of
34 modified closure. The current joint RCRA/CERCLA program (Chapter 5.0) will be assessed to ensure
35 that it meets site monitoring needs, and a revised groundwater monitoring plan will be prepared and
36 submitted to Ecology for approval. This assessment will include an evaluation of the monitoring well
37 network in relation to the groundwater flow direction and the constituents selected for analysis.
38 Groundwater samples will be collected quarterly and semiannually under a final status compliance

1 monitoring program. The revised groundwater monitoring plan will meet the requirements of WAC
2 173-303-645, WAC 173-303-610(7), WAC 173-340-410, and WAC 173-340-820.

3 The objectives of this proposed compliance monitoring program will be to (1) obtain samples that are
4 representative of existing groundwater conditions; (2) identify key monitoring constituents that were
5 attributable to past operations of the 300 APT; (3) determine applicable groundwater protection
6 standards (e.g., risk-based maximum concentration limits or background-based alternate concentration
7 limit(s); and (4) determine whether referenced groundwater concentration limit(s) for a given parameter
8 or parameters are exceeded. A DQO process will be used to guide the groundwater monitoring activities
9 to be conducted for the 300 APT. The primary purpose of the DQO monitoring process will be to ensure
10 that the type, quantity, and quality of groundwater monitoring data used in the decisionmaking process
11 are appropriate for their intended applications.

12 Until final RCRA closure of the 300 APT, the regulators will continue to receive quarterly reports
13 following current reporting requirements. The *Annual Report for RCRA Groundwater Monitoring*
14 *Projects at Hanford Site Facilities* (DOE-RL 1994a), which includes the 300 APT, will also continue to
15 be submitted to the regulators. The annual report interprets groundwater quality data (including
16 statistical comparisons of upgradient and downgradient indicator parameters) and water levels, and
17 reviews the adequacy of the network relative to changes in the groundwater system. If data indicate that
18 the current network is no longer adequate, an amended groundwater monitoring plan will be prepared
19 describing steps necessary to rectify inadequacies, including the installation of additional wells.

20 8.4 MAINTENANCE PLAN

21 This section provides a plan for maintenance of the unit during the compliance monitoring period
22 required for modified closure. Elements of this maintenance plan include repair of security devices, and
23 well replacement. The maintenance plan is based on observations made and recorded in the well
24 inspection form during site inspections. Except where immediate action is required, maintenance action
25 will be initiated within 90 days of inspection and discovery.

26 8.4.1 Repair of Security Control Devices

27 The responsible maintenance organization will be notified of any problems to the well locks or guard
28 posts and/or problems noted in the well inspection form during inspections and/or well monitoring
29 activities. Well repairs will be made as soon as possible after notification of damage. Repairs to the four
30 steel guard posts at each monitoring well will be made before the following inspection period and
31 tracked on well inspection forms to completion.

32 8.4.2 Well Replacement

33 Maintenance of groundwater monitoring wells will be carried out under internal procedure BHI-EE-01
34 (BHI 1995) or equivalent guidance. This procedure covers correction of problems found during routine
35 inspection or that manifest themselves at other times. If field maintenance procedures are inadequate to
36 solve problems identified during site inspection, management will decide whether to repair or replace the
37 well.

38 Where monitoring well damage requires modification of the groundwater monitoring program, the
39 monitoring plan will be amended in accordance with WAC 173-303-610 (8)(d).

1 **8.5 PERSONNEL TRAINING**

2 This section describes the training of personnel required to maintain the 300 APT in a safe and secure
3 manner during postclosure care as required by 40 CFR 265.16, WAC 173-303-330, and Condition II.C.2
4 of the Hanford Facility Dangerous Waste Permit.

5 **8.5.1 Outline of the Training Program**

6 This section outlines the introductory and continuing training programs necessary to conduct the
7 postclosure activities at the 300 APT in a safe manner. This section also includes a brief description of
8 how training will be designed to meet job tasks as required in 40 CFR 265.16(a).

9 **Surveillance Personnel:** The following outline provides information on classroom and on-the-job
10 training that surveillance personnel will complete before conducting independent site surveillance at the
11 300 APT:

- 12 • Security inspections
- 13 • Location, integrity, and inspection of groundwater wells.

14 **8.5.2 Job Description**

15 This section provides the job description(s) for postclosure activities at 300 APT as required by 40 CFR
16 265.16(d)(1) and WAC 173-303-330(2)(a).

17 **Site Surveillance:** Personnel with training in the following areas will conduct the inspections:

- 18 • Control devices
- 19 • Damage

20
21 **8.5.3 Training Content, Frequency, and Techniques**

22 The training of personnel requires the following job-specific training areas, as appropriate.

- 23 • **Emergency Preparedness Training:** This training will include a review of emergency
24 procedures that consists of listening to standard emergency signals, and reporting procedures.
- 25 • **The RCRA Groundwater Monitoring Scope, Organization, and Quality Assurance Plan:**
26 This training will include the documentation requirements included in the chain of custody to
27 the laboratory, how to correct mistakes made on field data sheets, and any applicable manifests
28 or shipping orders required for shipping samples to the laboratory.
- 29 • **Groundwater Field Sampling Procedures:** This training will include pump description and
30 operation of the three types of pumps (used by the field personnel), operational procedures for
31 the generators and the pumps used to gather groundwater samples, and special requirements for
32 collecting and packaging samples containing volatile organic materials that require acid
33 preservatives or special filtering. Training also will be given in the areas of field data record
34 preparation and chain of custody to the laboratory.
- 35 • **Site Security Inspections:** Personnel will be instructed on how to inspect for obvious signs of a
36 security breach. Signs may include downed barricades.

- 1 • **Location, Integrity, and Inspection of Groundwater Wells:** Personnel will be shown the
2 locations of the groundwater wells and instructed on how to inspect the cap and casing of each
3 well to ensure that it is locked.

4 **8.5.4 Training for Emergency Response**

5 This section will demonstrate that personnel conducting postclosure activities at the 300 APT have been
6 fully trained to respond effectively to emergencies and are familiar with emergency procedures and
7 equipment. In addition, hazardous waste site operation training will be provided in accordance with 29
8 CFR 1910.120.

- 9 • **Response to Fires:** The 300 APT will have no existing structures and may be covered with a
10 soil cover. As such, there is no need for fire equipment. However, if personnel are at the unit
11 when a brushfire breaks out, they will notify the Hanford Fire Department.

- 12 • **Response to Groundwater Contamination:** Based on the current groundwater monitoring
13 program, groundwater contamination beneath the 300 APT does not constitute an emergency
14 situation, nor will it become so as a result of closure. Therefore, emergency response training in
15 this regard is not warranted at this time.

16 **8.5.5 Implementation of Training Program**

17 Surveillance personnel will undergo the required training programs outlined in Section 8.5.1 as they
18 pertain to monitoring requirements. Surveillance personnel will not be allowed to perform inspections at
19 the 300 APT until the required training programs have been completed.

20 **8.6 PROCEDURES TO PREVENT HAZARDS**

21 As required under 40 CFR 265.14 and WAC 173-303-310, the closure plan will describe procedures to
22 prevent hazards from occurring at the closed unit. This section describes procedures to be used for
23 ensuring proper security at the site including surveillance measures.

24 **8.6.1 Security**

25 Security will be maintained through routine surveillance, and physical barriers that will remain in effect
26 during the period of postclosure care required for modified closure.

27 **8.6.1.1 24-Hour Surveillance System.** The 300 APT unit is located within the 300 Area of the Hanford
28 Site. The 300 Area will remain an industrial, operational area of the Hanford Site for the foreseeable
29 future. Operational areas will be under 24-hour surveillance by Hanford Patrol protective force
30 personnel.

1 **8.7 CLOSURE CONTACT**

2 The following office will be the official contact for the 300 APT during the postclosure care period:

3 Office of Environmental Assurance,
4 Permits, and Policy
5 U.S. Department of Energy
6 Richland Operations Office
7 P.O. Box 550
8 Richland, Washington 99352
9

10 **8.8 CERTIFICATION OF MODIFIED CLOSURE CARE COMPLETION AND FINAL**
11 **CLOSURE**

12 The sole source of regulatory direction for modified closure is Section II, K of the Hanford Facility
13 Dangerous Waste Permit. The permit describes this period as a postclosure period. Completion of the
14 postclosure period will end the period of modified closure and will allow final closure with regulator
15 concurrence.

16 No later than 60 days after completion of the modified postclosure care period, the DOE-RL will submit
17 to Ecology a certification of completion of postclosure care. This certification, stating that postclosure
18 care for the unit was performed in accordance with the approved postclosure plan, will be signed by both
19 the DOE-RL and an independent registered professional engineer. The certification will be submitted by
20 registered mail or an equivalent delivery service. Documentation supporting the independent registered
21 professional engineer's certification will be supplied upon request of the regulatory authority. The
22 DOE-RL and the independent professional engineer will certify with a document similar to Figure 7-4.
23
24

Table 8-1. Inspection Schedule for the 300 Area Process Trenches.

Inspection Item	Inspection Frequency
Security control devices: well caps, and locks	Quarterly
Well condition	Semiannually
Subsurface well condition	3 to 5 years

25