Hanford Federal Facility Agreement and Consent Order

April 2003

by

Washington State
Department of Ecology

United States
Environmental Protection Agency

United States
Department of Energy

89-10 REV. 6

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As Amended Through April 18, 2003

89-10 REV. 6

CONTENTS

SUMMARY 1

PART ONE. INTRODUCTION 3
- Article I. Jurisdiction 3
- Article II. Parties 6
- Article III. Purpose 7
- Article IV. Statutory Compliance and RCRA/CERCLA Integration and Coordination 9
- Article V. Definitions 12

PART TWO. PERMITTING/CLOSURE OF TSD UNITS/GROUPS..... 16
- Article VI. Findings and Determinations 16
- Article VII. Work 18
- Article VIII. Resolution of Disputes 20
- Article IX. Stipulated Dangerous Waste Penalties 25
- Article X. Enforceability 27
- Article XI. Schedule 28
- Article XII. Common Terms 28

PART THREE. REMEDIAL AND CORRECTIVE ACTIONS 29
- Article XIII. Findings and Determinations 29
- Article XIV. Work 32
- Article XV. Review of Documents 35
- Article XVI. Resolution of Disputes 36
- Article XVII. Schedule 41
- Article XVIII. Permits 42
- Article XIX. Recovery of EPA CERCLA Response Costs 44
- Article XX. Stipulated Penalties 44
- Article XXI. Enforceability 47
- Article XXII. Common Terms 48

PART FOUR. INTEGRATION OF EPA AND ECOLOGY RESPONSIBILITIES 49
- Article XXIII. RCRA/CERCLA Interface 49
- Article XXIV. Lead Regulatory Agency and Regulatory Approach Decisions 49
- Article XXV. Physically Inconsistent Actions 51
- Article XXVI. Dispute Resolution 52
- Article XXVII. Other Disputes and EPA Oversight 54
- Article XXVIII. RCRA/CERCLA Reservation of Rights 54

CONTENTS (continued)

PART FIVE. COMMON PROVISIONS 56
Article XXIX. Recovery of State Costs 56
Article XXX. Additional Work or Modification to Work 61
Article XXXI. Quality Assurance 62
Article XXXII. Creation of Danger 62
Article XXXIII. Notification 63
Article XXXIV. Reserved 63
Article XXXV. Sampling and Data/Document Availability 63
Article XXXVI. Retention of Records 64
Article XXXVII. Access 64
Article XXXVIII. Five-Year Review 66
Article XXXIX. Modification of Agreement 66
Article XL. Good Cause for Extensions 67
Article XLI. Conveyance of Title 68
Article XLII. Public Participation 69
Article XLIII. Duration/Termination 69
Article XLIV. Severability 71
Article XLV. Classified and Confidential Information 71
Article XLVI. Reservation of Rights 72
Article XLVII. Force Majeure 74
Article XLVIII. Cost, Schedule, Scope, Integration, Planning and Reporting 76
Article XLIX. Inclusion of Nonregulated Nuclear Materials 83
Article L. Compliance with Applicable Laws 84
Article LI. Effective Date 84
Article LII. Attachment 1 84

ATTACHMENT 1 Letter from U.S. Department of Justice

ATTACHMENT 2 Action Plan

CONTENTS (continued)

EXECUTIVE SUMMARY 1

1.0 INTRODUCTION 1-1
1.1 Purpose 1-1
1.2 Regulatory Authorities 1-1
1.3 Organization of Action Plan 1-2

2.0 MILESTONES 2-1
2.1 Introduction 2-1
2.2 Disposal of Tank Wastes 2-1
2.3 Cleanup of Past-Practice Units 2-1
2.4 RCRA and HWMA Operating Requirements 2-2

3.0 UNIT IDENTIFICATION, CLASSIFICATION, AND PRIORITIZATION 3-1
3.1 Introduction 3-1
3.2 Treatment, Storage, and Disposal Units 3-2
3.3 Past-Practice Units 3-2
3.4 Prioritization 3-3
3.5 Waste Information Data System and Hanford Site Waste Management Units Report 3-5

4.0 AGREEMENT MANAGEMENT 4-1
4.1 Project Manager Role 4-1
4.2 Interagency Management Integration Team 4-2
4.3 Senior Executive Committee 4-3

5.0 INTERFACE OF REGULATORY AUTHORITIES..... 5-1
5.1 Regulatory Programs 5-1
5.2 Categories of Waste Units 5-1
5.3 Management of Treatment, Storage, and Disposal Units 5-2
5.4 Management of Past-Practice Units 5-3
5.5 Treatment, Storage, and Disposal Units and Past-Practice Units Interface 5-4
5.6 Lead Regulatory Agency Concept 5-5
5.7 Integration with the National Environmental Policy Act (NEPA) 5-6

6.0 TREATMENT, STORAGE, AND DISPOSAL UNIT PROCESS 6-1
6.1 Introduction 6-1
6.2 Treatment, Storage, and Disposal Permitting Process 6-2
6.3 Treatment, Storage, and Disposal Closure Process 6-5
6.4 Response to Imminent and Substantial Endangerment Cases 6-8
6.5 Quality Assurance 6-8

7.0 PAST PRACTICES PROCESSES..... 7-1
7.1 Introduction 7-1
7.2 Preliminary Processes 7-4
7.3 Comprehensive Environmental Response, Compensation, and Liability Act Past-Practice Unit Process 7-6

CONTENTS (continued)

7.4 Resource Conservation and Recovery Act Past-Practice Unit Process 7-15
7.5 Cleanup Requirements 7-18
7.6 Natural Resource Trusteeships 7-21
7.7 Health Assessments 7-22
7.8 Quality Assurance 7-23

8.0 FACILITY DECOMMISSIONING PROCESS 8-1
8.1 Introduction 8-1
8.2 Facility Operations 8-5
8.3 Decommissioning Process Planning 8-5
8.4 General Decommissioning Process 8-7
8.5 Transition Phase 8-8
8.6 Surveillance and Maintenance Phase 8-12
8.7 Disposition Phase 8-12
8.8 Preclosure Work Plan and RCRA Closure Plan 8-17

9.0 DOCUMENTATION AND RECORDS 9-1
9.1 Categorization of Documents 9-1
9.2 Document Review and Comment Process 9-1
9.3 Document Revisions 9-7
9.4 Administrative Record 9-9
9.5 Distribution of Documents and Correspondence 9-14
9.6 Data Access and Delivery Requirements 9-14

10.0 COMMUNITY RELATIONS/PUBLIC INVOLVEMENT 10-1
10.1 Introduction 10-1
10.2 Public Information Repositories 10-1
10.3 Mailing Lists and Newsletter 10-2
10.4 Press Releases 10-2
10.5 Public Meetings 10-2
10.6 Public Comment Opportunities 10-3
10.7 Public Hearing Opportunities 10-5
10.8 Technical Assistance Grants 10-5
10.9 Washington State Public Participation Grants 10-6
10.10 Indian Tribes 10-6
10.11 Citizen Suit Provisions 10-7

11.0 WORK SCHEDULE, WORK PLANS, AND ASSOCIATED REPORTS 11-1
11.1 Introduction 11-1
11.2 Work Schedule 11-1
11.3 Work Schedule Updates 11-2
11.4 DOE Baseline Change Control Documentation, Multi Year Work Plans and Systems Engineering Control Documents 11-2
11.5 Waste/Material Stream Project Management (Work) Plans Prepared Under Agreement Milestone Series M-90-00, M-91-00, and M-92-00 11-2
11.6 Other Work Plans and Supporting Schedules 11-4
11.7 Supporting Technical Plans and Procedures 11-5
11.8 Tank Waste Remediation System Critical Path Process 11-6

CONTENTS (continued)

12.0 CHANGES TO THE AGREEMENT 12-1
12.1 Introduction 12-1
12.2 Authority to Approve Changes 12-1
12.3 Formal Change Control Process 12-1
12.4 Minor Field Changes 12-4

13.0 LIQUID EFFLUENT TREATMENT AND DISPOSAL..... 13-1
13.1 Liquid Effluent Discharge Restrictions 13-1

14.0 SIGNATURE 14-1

CONTENTS (continued)

APPENDIXES

A.	Definition of Terms and Acronyms	A-1
B.	Listing of Treatment, Storage, and Disposal Groups/Units	B-1
C.	Prioritized Listing of Operable Units and Designation of Lead Regulatory Agency	C-1
D.	Work Schedule and Designation of Lead Regulatory Agency ..	D-1
E.	Key Individuals	E-1
F.	Supporting Technical Plans and Procedures	F-1
G.	Data Management Initiatives	G-1
H.	Single Shell Tank Waste Retrieval Criteria Procedure	H-1

LIST OF FIGURES

6-1 Permitting Process Flowchart 6-4

6-2 Closure Process Flowchart 6-6

7-1 Aggregate Areas 7-2

7-2 Comparison of Resource Conservation and Recovery Act Corrective Measure and Comprehensive Environmental Response, Compensation, and Liability Act Remedial Action Processes 7-3

7-3 Overview of the Remedial Investigation/Feasibility Study Process 7-8

7-4 Remedial Investigation/Feasibility Study (Resource Conservation and Recovery Act Facility Investigation/Corrective Measures Study) Work Plan Review and Approval 7-10

7-5 Overview of RCRA Facility Investigation/Corrective Measures Study Process 7-16

8-1 Predecommissioning Planning 8-6

8-2 Typical Decommissioning Process 8-7

8-3 Transition Phase Breakdown 8-9

8-4 Surveillance and Maintenance Phase Breakdown 8-13

8-5 Disposition Phase Breakdown 8-15

9-1 Review and Comment on Primary Documents 9-4

9-2 Part B Permit Application and Closure/Postclosure Plan Process Flowchart 9-6

9-3 Review and Comment on Secondary Documents 9-8

12-1 Change Control Sheet 12-2

H-1 Process for Assessing Percentage of Waste Retrieved from Waste Retrieval H-7

LIST OF TABLES

8-1 Decommissioning Process Relationships 8-3

8-2 Preclosure Work Plan and Closure Plan Elements 8-19

9-1 Primary Documents 9-2

9-2 Secondary Documents 9-3

9-3 Administrative Record Documents 9-11

Document current as of April 24, 2003

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
AND THE
STATE OF WASHINGTON DEPARTMENT OF ECOLOGY

IN THE MATTER OF:	)	
	)	
The U.S. Department of Energy,	)	HANFORD FEDERAL FACILITY
Richland Operations Office,	)	AGREEMENT AND CONSENT ORDER
Richland, Washington	)	
	)	EPA Docket Number: 1089-03-04-120
Respondent	)	Ecology Docket Number: 89-54

Based on the information available to the Parties on the effective date of this HANFORD FEDERAL FACILITY AGREEMENT AND CONSENT ORDER ("Agreement"), and without trial or adjudication of any issues of fact or law, the Parties agree as follows:

This Agreement is divided into five parts: Part One contains introductory provisions which apply to Parts Two, Three, Four, and Five: Part Two contains provisions governing hazardous waste treatment, storage and disposal (TSD), hazardous waste facility permitting, closure and post-closure activities; Part Three contains provisions governing remedial and corrective action activities; Part Four contains provisions which delineate in part the respective roles and interrelationships between EPA and Ecology, and between CERCLA and RCRA on the Hanford Site; and Part Five contains common provisions which apply to Parts Two, Three, and Four. CERCLA response actions and corrective actions under HSWA, before and after State authorization, shall be governed by Part Three of this Agreement. RCRA compliance, and TSD permitting, closure, and post closure care (except HSWA corrective action) shall be governed by Part Two of this Agreement.

This Agreement also consists of Attachment 1, a letter dated February 26, 1989 from the Department of Justice to the Department of Ecology, Attachment 2, the Action Plan, and Attachment 3, the Mutual Cooperation Funding Agreement between the Department of Ecology and the Department of Energy. In the event of any inconsistency between this Agreement and the attachments to this Agreement, this Agreement shall govern unless and until duly modified pursuant to Article XXXIX of this Agreement.

The Action Plan contains plans, procedures and implementing schedules. The Action Plan is an integral and enforceable part of this Agreement.

PART ONE

INTRODUCTION

ARTICLE I. JURISDICTION

1. The U.S. Environmental Protection Agency (EPA), Region 10, enters into this Agreement pursuant to Section 120(e) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 U.S.C. Section 9620(e), as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA), Pub. L. 99-499 (hereinafter jointly referred to as CERCLA), and Sections 6001, 3008(h), and 3004(u) and (v) of the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. Sections 6961, 6928(h), 6924(u) and (v), as amended by the Hazardous and Solid Waste Amendments of 1984 (HSWA), Pub. L. 98-616 (hereinafter jointly referred to as RCRA) and Executive Order 12580.

2. Pursuant to Section 3006 of the Resource Conservation and Recovery Act, 42 U.S.C. Section 6926, EPA may authorize states to administer and enforce a state hazardous waste management program, in lieu of the federal hazardous waste management program. The State of Washington has received authorization from EPA to administer and enforce such a program within the State of Washington. The requirements of the federally authorized state program are equivalent to the requirements of the federal program set forth in Subtitle C of RCRA and its implementing regulations (excluding those portions of the federal program imposed pursuant to HSWA for which the State of Washington has not yet been authorized). The Department of Ecology (Ecology) is the state agency designated by RCW 70.105.130 to implement and enforce the provisions of the Resource Conservation and Recovery Act as amended.

3. The State of Washington, Department of Ecology (Ecology) enters into this Agreement pursuant to CERCLA, RCRA, Washington Hazardous Waste Management Act, Chapter 70.105 RCW, and pursuant to Ecology's authority to issue regulatory orders under RCW 70.105.095.

4. The Parties agree that the generation, treatment, storage, and disposal of hazardous waste is regulated by the State of Washington, Department of Ecology pursuant to Ch. 70.105 RCW, the State Hazardous Waste Management Act (HWMA), and regulations governing the management of hazardous wastes are contained at Ch. 173-303 WAC, and finally that pursuant to Section 6001 of RCRA, 42 U.S.C. Sec. 6961, the United States Department of Energy (DOE), as a federal agency, must comply with the procedural and substantive requirements of such state law. DOE is a "person" as defined at RCW 70.105.010(7).

5. The U.S. Department of Energy (DOE) enters into this Agreement pursuant to Section 120(e) of CERCLA, Sections 6001, 3008(h), and 3004(u) and (v) of RCRA, Executive Orders 12580 (January 1987) and 12088 (Oct. 1978), and the Atomic Energy Act of 1954, as amended, 42 U.S.C. Section 2011 et seq. DOE agrees that it is bound by this Agreement and that its terms may be enforced against DOE pursuant to the terms of this Agreement or as otherwise provided by law. As stated in Section 1006 of RCRA, nothing in this Agreement shall be construed to require DOE to take any action pursuant to RCRA which is inconsistent with the requirements of the Atomic Energy Act of 1954, as amended. In the event DOE asserts that it cannot comply with any provision of this Agreement based on an alleged inconsistency between the requirements of this Agreement and the Atomic Energy Act of 1954, as amended, it shall provide the basis for the inconsistency assertion in writing. In the event Ecology

disagrees with the assertions by DOE, Ecology reserves the right to seek judicial review, or take any other action provided by law in case of any such alleged inconsistency.

6. The Parties are entering into this Agreement in anticipation that the Hanford Site will be placed on the National Priorities List (NPL), 40 CFR Part 300. The Hanford Site has been listed by EPA on the federal agency hazardous waste compliance docket under CERCLA Section 120, 52 Federal Register 4280 (Feb. 12, 1988). Four subareas of the Hanford Site have been proposed by EPA for addition to the NPL, 53 Fed. Reg. 23988 (June 24, 1988). [Note: The four areas of the Hanford Site were officially listed on the NPL on November 3, 1989 (Federal Register 41015, October 4, 1989)]. When the Hanford Site, or subareas of the Site, is placed on the NPL, Parts One, Three, Four, and Five of this Agreement shall also serve as the Interagency Agreement required by CERCLA Section 120(e). Parts One, Two, Four, and Five of this Agreement shall serve as the RCRA provisions governing compliance, permitting, closure and post-closure care of treatment, storage or disposal (TSD) Units. The Action Plan, at Appendix B, lists those TSD Groups or Units regulated by Ch. 70.105 RCW. As the categorization effort continues, TSD Units may be added to this list. DOE agrees that those TSD Units listed in Appendix B of the Action Plan, and any additional TSD Units which are identified as TSD Units in the future are subject to the regulatory framework of Ch. 70.105 RCW pursuant to RCRA Section 6001. Ecology's authority over these TSD Units shall not be abrogated or affected by the nomination or ultimate inclusion of the Hanford Site on the NPL and such Units shall be regulated in accordance

with this Agreement; provided, however, that with respect to conflicts between EPA and Ecology, Article XXVIII (RCRA/CERCLA Reservation of Rights) shall be controlling.

7. On April 13, 1993, the District Court for the Eastern District of Washington issued an Order Granting in Part and Denying in Part Motions to Dismiss claims of the plaintiffs in Heart of America Northwest v. Westinghouse Hanford Company, No. CY-92-144-AAM. The court concluded in its opinion that this Agreement embodies an integrated response action under Sections 120 and 104 of CERCLA, and that plaintiffs' claims consequently were barred by Section 113(h) of CERCLA. Plaintiffs did not seek to enforce this Agreement, but instead sought to impose requirements that were not part of this Agreement. Nothing in the court's opinion affects the enforceability of this Agreement. All parties reaffirm that this Agreement is enforceable in accordance with all its terms, reservations and applicable law.

ARTICLE II. PARTIES

8. The Parties to this Agreement are EPA, Ecology, and DOE.

9. DOE shall provide a copy of this Agreement and relevant attachments to each of its prime contractors. A copy of this Agreement shall be made available to all other contractors and subcontractors retained to perform work under this Agreement. DOE shall provide notice of this Agreement to any successor in interest prior to any transfer of ownership or operation.

10. DOE shall notify EPA and Ecology of the identity and the scope of work of each of its prime contractors and their subcontractors to be used in carrying out the terms of this Agreement in advance of their involvement in such work. Upon request, DOE shall also provide the identity and work scope of any other contractors and subcontractors performing work under this

Agreement. DOE shall take all necessary measures to assure that its contractors, subcontractors and consultants performing work under this Agreement act in a manner consistent with the terms of this Agreement.

11. DOE agrees to undertake all actions required by the terms and conditions of this Agreement and not to contest state or EPA jurisdiction to execute this Agreement and enforce its requirements as provided herein.

12. This Article II shall not be construed as a promise to indemnify any person.

13. DOE remains obligated by this Agreement regardless of whether it carries out the terms through agents, contractors, and/or consultants. Such agents, contractors, and/or consultants shall be required to comply with the terms of this Agreement, but the Agreement shall be binding and enforceable only against the Parties to this Agreement.

ARTICLE III. PURPOSE

14. The general purposes of this Agreement are to:

A. Ensure that the environmental impacts associated with past and present activities at the Hanford Site are thoroughly investigated and appropriate response action taken as necessary to protect the public health, welfare and the environment;

B. Provide a framework for permitting TSD Units, promote an orderly, effective investigation and cleanup of contamination at the Hanford Site, and avoid litigation between the Parties;

C. Ensure compliance with RCRA and the Washington Hazardous Waste Management Act (HWMA), Ch. 70.105 RCW, for TSD Units including requirements covering permitting, compliance, closure, and post-closure care.

D. Establish a procedural framework and schedule for developing, prioritizing, implementing and monitoring appropriate response actions at the Hanford Site in accordance with CERCLA, the National Contingency Plan (NCP), 40 CFR Part 300, Superfund guidance and policy, RCRA, and RCRA guidance and policy;

E. Facilitate cooperation, exchange of information and the coordinated participation of the Parties in such actions; and

F. Minimize the duplication of analysis and documentation.

15. Specifically, the purposes of this Agreement are to:

A. Identify TSD Units which require permits; establish schedules to achieve compliance with interim and final status requirements and to complete DOE's Part B permit application for such Units in accordance with the Action Plan; identify TSD Units which will undergo closure; close such Units in accordance with applicable laws and regulations; require post-closure care where necessary; and coordinate closure with any inter-connected remedial action at the Hanford Site.

B. Identify Interim Action (IA) alternatives which are appropriate at the Hanford Site prior to the implementation of final corrective and remedial actions under RCRA and CERCLA. IA alternatives shall be identified and proposed to the Parties as early as possible and prior to formal proposal, in accordance with the Action Plan. This process is designed to promote cooperation among the Parties in promptly identifying IA alternatives.

C. Establish requirements for the performance of investigations to determine the nature and extent of any threat to the public health or welfare or the environment caused by any release and threatened release of hazardous substances, pollutants or contaminants at Hanford and to establish requirements for the performance of studies for the Hanford Site to identify,

evaluate, and select alternatives for the appropriate action(s) to prevent, mitigate, or abate the release or threatened release of hazardous substances, pollutants or contaminants at the Hanford Site in accordance with CERCLA and HSWA.

D. Identify the nature, objective and schedule of response actions to be taken at the Hanford Site. Response actions at Hanford shall attain that degree of cleanup of hazardous substances, pollutants or contaminants mandated by CERCLA (including applicable or relevant and appropriate state and federal requirements for remedial actions in accordance with Section 121 of CERCLA, 42 U.S.C. Sec. 9621), and HSWA.

E. Implement the selected interim and final remedial actions in accordance with CERCLA, and selected corrective actions in accordance with RCRA.

ARTICLE IV. STATUTORY COMPLIANCE AND RCRA/CERCLA INTEGRATION AND COORDINATION

16. Waste Management Units on the Hanford Site have been classified as either TSD units subject to Chapter 70.105 RCW or past-practice units subject to either CERCLA or the corrective action provisions of RCRA. Operable units have been formed which group multiple units for action in accordance with the Action Plan. Some units may be subject to and addressed by both Chapter 70.105 RCW and CERCLA and/or the corrective action requirements of RCRA. Part Two of this Agreement sets forth DOE's obligation to obtain TSD permits, to close TSD Units, and otherwise comply with applicable RCRA requirements. Part Three of this Agreement sets forth DOE's obligations to satisfy CERCLA and HSWA corrective action.

17. In this comprehensive Agreement, the Parties intend to integrate DOE's CERCLA response obligations and RCRA corrective action obligations which relate to the release(s) of hazardous substances, hazardous wastes, pollutants and contaminants covered by this Agreement. Therefore, the Parties intend that activities covered by Part Three of this Agreement will achieve compliance with CERCLA, 42 U.S.C. Section 9601 et seq.; will satisfy the corrective action requirements of the HWMA, Sections 3004(u) and (v) of RCRA, 42 U.S.C. Section 6924(u) and (v), for a RCRA permit, and Section 3008(h), 42 U.S.C. Section 6928(h); and will meet or exceed all applicable or relevant and appropriate federal and state requirements to the extent required by Section 121 of CERCLA, 42 U.S.C. Section 9621. The Parties agree that with respect to releases covered by this Agreement, RCRA, and RCW Chapters 70.105 and the Model Toxics Control Act (Initiative 97) as codified beginning March 1, 1989, shall be incorporated where appropriate as "applicable or relevant and appropriate requirements" pursuant to Section 121 of CERCLA.

18. The Parties agree that past-practice authority may provide the most efficient means for addressing groundwater contamination plumes originating from both TSD and past-practice units. However, in order to ensure that TSD units at Hanford are brought into compliance with RCRA and state hazardous waste regulations, Ecology intends, subject to Part Four of this Agreement, that remedial actions that address TSD groundwater contamination, excluding situations where there is an imminent threat to the public health or environment, will meet or exceed the substantive requirements of RCRA.

19. Based on the foregoing, the Parties intend that any remedial or corrective action selected, implemented and completed under Part Three of this

Agreement shall be protective of human health and the environment such that remediation of releases covered by this Agreement shall obviate the need for further remedial or corrective action. The Parties intend that such actions will address all aspects of contamination at units covered by the Action Plan so that no further action will be required under federal and state law. However, the Parties recognize and agree that remediation of groundwater contamination from TSD units at the Hanford Site may be managed either under Part Three of this Agreement, or under Part Two of this Agreement, in accordance with the Action Plan. Ecology reserves the right to enforce timely cleanup of TSD associated groundwater contamination as provided in Article XLVI (Reservation of Rights).

20. Ecology will administer the HWMA, in accordance with this Agreement, including those provisions which 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.

21. Nothing in this Agreement shall alter the DOE's authority with respect to removal actions conducted pursuant to Section 104 of CERCLA, 42 U.S.C. Sec. 9604, as provided by Executive Order 12580.

ARTICLE V. DEFINITIONS

22. Except as noted below or otherwise explicitly stated, the appropriate definitions provided in CERCLA, RCRA, the NCP, Ch. 70.105 RCW and Ch. 173-303 WAC shall control the meaning of terms used in this Agreement. In addition:

A. "Action Plan" means the implementing document for this Agreement, which is set forth as Attachment 2 and by this reference incorporated into this Agreement. The term includes all amendments to that document, which the Parties anticipate will be made periodically.

B. "Additional Work" means any new or different work outside the originally agreed upon scope of work, which is determined pursuant to Article XXX (Additional Work).

C. "Agreement" means this document and includes all attachments, addenda and modifications to this document, which are required to be written and to be incorporated into or appended to this document.

D. "Applicable or Relevant and Appropriate Requirements" (ARAR) means any standard, requirement, criteria or limitation as provided in Section 121(d)(2) of CERCLA.

E. "Article" means a subdivision of this Agreement which is identified by a Roman numeral.

F. "Authorized Representative" is any person, including a contractor, who is specifically designated by a Party to have a defined capacity, including an advisory capacity.

G. "Days" mean calendar days, unless otherwise specified. Any submittal, written notice of position or written statement of dispute that would be due under the terms of this Agreement on a Saturday, Sunday or federal or state holiday shall be due on the following business day.

H. "Dispute Resolution" means the process for resolving disputes that arise under this Agreement.

I. "DOE" or "US DOE" means the United States Department of Energy, its employees and Authorized Representatives.

J. "Ecology" means the State of Washington Department of Ecology, its employees and Authorized Representatives.

K. "EPA" means the United States Environmental Protection Agency, its employees and Authorized Representatives.

L. "Hanford," "Hanford Site," or "Site" means the approximately 560 square miles in Southeastern Washington State (excluding leased land, State owned lands, and lands owned by the Bonneville Power Administration) which is owned by the United States and which is commonly known as the Hanford Reservation (see map at Figure 7-1 in the Action Plan). This definition is not intended to limit CERCLA or RCRA authority regarding hazardous wastes, substances, pollutants or contaminants which have migrated off the Hanford Site.

M. "Hazardous Substance" is defined in CERCLA Section 101(14).

N. "Hazardous Waste" are those wastes included in the definitions at RCRA Section 1004(5) and RCW 70.105.010(15).

O. "HWMA" shall mean the Hazardous Waste Management Act as codified at Ch. 70.105 RCW, and its implementing regulation at Ch. 173-303 Washington Administrative Code.

P. "HSWA" shall mean the Hazardous and Solid Waste Amendments of 1984, P.L. 98-616.

Q. "HSWA Corrective Action" means those corrective action requirements set forth in Sections 3004(u) and (v) and 3008(h) of RCRA; and, state equivalents.

R. "lead regulatory agency" is that agency (EPA or Ecology) which is assigned regulatory oversight responsibility with respect to actions under this Agreement regarding a particular Operable Unit, TSD Unit/Group or Milestone pursuant to Section 5.6 of the Action Plan. The designation of a lead regulatory agency shall not change the jurisdictional authorities of the Parties.

S. "Radioactive Mixed Waste" or "Mixed Waste" are wastes that contains both hazardous waste subject to RCRA, as amended, and radioactive waste subject to the Atomic Energy Act of 1954, as amended.

T. "Operable Unit" means a discrete portion of the Hanford Site, as identified in Section 3.0 of the Action Plan.

U. "Paragraph" means a numbered paragraph (including subparagraphs) of this Agreement.

V. "Part" means one of the five major divisions of this Agreement.

W. "RCRA" means the Resource Conservation and Recovery Act, 42 U.S.C. Section 6901 et seq., as amended. For purposes of this Agreement, "RCRA" also includes HWMA, Ch. 70.105 RCW.

X. "RCRA Permit" means a permit under RCRA and/or HWMA for treatment, storage or disposal of hazardous waste.

Y. "Timetables and deadlines" means major and interim milestones and all work and actions (not including target dates) as delineated in the Action Plan and supporting work plans (including performance of actions established pursuant to the Dispute Resolution procedures set forth in this Agreement).

Z. "TSD Group" means a grouping of TSD (treatment, storage or disposal) Units for the purpose of preparing and submitting a permit application and/or closure plan pursuant to the requirements under RCRA, as determined in the Action Plan.

AA. "TSD Unit" means a treatment, storage or disposal Unit which is required to be permitted and/or closed pursuant to RCRA requirements as determined in the Action Plan.

BB. "Waste Management Unit" means an individual location on the Hanford Site where waste has or may have been placed, either planned or unplanned, as identified in the Action Plan.

PART TWO

PERMITTING/CLOSURE OF TSD UNITS/GROUPS

ARTICLE VI. FINDINGS AND DETERMINATIONS

23. The following paragraphs of this Article constitute a summary of the facts upon which EPA and Ecology are proceeding for purposes of Part Two of this Agreement. None of the facts related herein shall be considered admissions by any Party. This Article contains findings by EPA and Ecology, and shall not be used by any person related or unrelated to this Agreement for purposes other than determining the basis of this Agreement.

A. In and/or before 1943, the United States acquired approximately 560 square miles of land, now known as the Hanford Reservation. The DOE and its predecessors have operated Hanford continuously since 1943, mainly for the production of special nuclear materials for the national defense.

B. On or about August 14, 1980, DOE submitted a Notice of Hazardous Waste Activity to EPA pursuant to Section 3010 of RCRA, identifying DOE as a generator, transporter and owner and operator of a TSD Facility. On or about November 1980, DOE submitted Part A of its permit application to EPA qualifying for interim status pursuant to Section 3005 of RCRA. DOE's Part A has been modified by DOE and submitted to EPA and/or Ecology on several occasions. A revised Part A application submitted on May 20, 1988, related to activities involving Mixed Waste.

C. DOE operates and has operated since November 19, 1980, a hazardous waste management facility engaged in the treatment, storage, and disposal of Hazardous Wastes which are subject to regulation under RCRA and/or the Washington State Hazardous Waste Management Act, Ch. 70.105 RCW.

D. Since the establishment of the Hanford Site in 1943, materials subsequently defined as Hazardous Substances, pollutants and contaminants by CERCLA, materials defined as Hazardous Waste and constituents by RCRA and/or Ch. 70.105 RCW, have been produced, and disposed of or released, at various locations at the Hanford Site, including TSD Units.

24. Based upon the Finding of Fact set forth in Paragraph 23, and the information available, and without admission by DOE, EPA and Ecology have determined the following:

A. Pursuant to Sec. 6001 of RCRA, 42 U.S.C. Section 6961, DOE is subject to and must comply with RCRA and the Washington State Hazardous Waste Management Act, Ch. 70.105 RCW.

B. The Hanford Site includes certain hazardous waste treatment, storage, and disposal Units authorized to operate under Section 3005(e) of RCRA, 42 U.S.C. Sec. 6925(e), and is subject to the permit requirements of Section 3005 of RCRA.

C. Certain wastes and constituents at the Hanford Site are Hazardous Wastes or hazardous constituents as defined by Section 1004(5) of RCRA, 42 U.S.C. Sec. 6903(5), and 40 CFR Part 261. There are also Hazardous Wastes or hazardous constituents at the Hanford Site within the meaning of Ch. 70.105 RCW and WAC 173-303.

D. The Hanford Site constitutes a facility within the meaning of Sections 3004 and 3005 of RCRA, 42 U.S.C. Secs. 6924 and 6925, and RCW 70.105.

E. The DOE is the owner of the Hanford Site.

25. The submittals, actions, schedules, and other elements of work required or imposed by this Agreement are reasonable and necessary to protect the public health and welfare and the environment.

ARTICLE VII. WORK

26. DOE agrees to perform the work described in this Article VII in accordance with the Action Plan. The Action Plan delineates the actions to be taken, schedules for such actions, and establishes the overall plan to conduct RCRA permitting and closures, and remedial or corrective action under CERCLA or RCRA. The Action Plan lists the Hanford TSD Units and TSD Groups which are subject to permitting and closure under this Agreement. Additional TSD Units may be listed as they are identified. Units listed in Appendix B of the Action Plan are subject to regulation under RCRA and Ch. 70.105 RCW. Ecology agrees to provide DOE with guidance and timely response to requests for guidance to assist DOE in the performance of its work under Part Two of this Agreement.

27. DOE shall comply with RCRA Permit requirements for TSD Units specifically identified for permitting or closure by the Action Plan and shall submit permit applications in accordance with the Action Plan. EPA shall issue the HSWA provisions of such permits until such authority is delegated to Ecology pursuant to Section 3006 of RCRA. The lead regulatory agency shall review such permit applications in accordance with applicable law. The RCRA Permit, whether issued by Ecology and EPA, or Ecology alone after delegation of HSWA authority, shall reference the terms of this Agreement, and provide that compliance with this Agreement and corrective action permit conditions

developed pursuant to this Agreement shall satisfy all substantive corrective action requirements of RCRA/HSWA.

28. DOE shall bring its facility into compliance with RCRA requirements specified in the Action Plan according to the schedule set forth therein. DOE shall comply with RCRA closure requirements under applicable regulations for those TSD Units specifically identified in the Action Plan. DOE shall implement closures in accordance with the Action Plan. Closures under this Article shall be regulated by Ecology under applicable law, but shall, as necessary, be coordinated with remedial action requirements of Part Three.

29. If Ecology determines that DOE is violating or has violated any RCRA requirement of this Agreement, and that formal enforcement action is appropriate, it will notify DOE in writing of the following: the facts of the violation(s); the regulation(s) or statute(s) violated; and Ecology's intention to take formal enforcement action; provided, however, that no such notice will necessarily be given for violations that Ecology considers egregious. The purpose of providing this notice is to allow DOE an opportunity to identify any facts it believes are erroneous. This notice shall be sent to the Director for DOE's Office of Environmental Assurance, Permits & Policy no later than seven (7) days before Ecology intends to take formal enforcement action. This notice (or the failure to give notice of violations that Ecology considers egregious) shall not be subject to Dispute Resolution under this Agreement. If Ecology takes formal enforcement action, the adequacy of the notice provided pursuant to this paragraph may not be challenged in any appeal. For purposes of this paragraph, taking "formal enforcement action" means issuing an order and/or penalty under chapter 70.105

RCW.

ARTICLE VIII. RESOLUTION OF DISPUTES

30. Except as otherwise specifically provided in this Agreement, if DOE objects to any Ecology disapproval, proposed modification, decision or determination made pursuant to Part Two of this Agreement (or Part Three requirements for which Ecology is the lead regulatory agency) it shall notify Ecology in writing of its objection within seven (7) days of receipt of such notice. Thereafter, DOE and Ecology shall make reasonable efforts to informally resolve disputes at the project manager level. These Dispute Resolution provisions shall not apply to Dangerous Waste permit actions which are otherwise subject to administrative or judicial appeal. These Dispute Resolution provisions shall not apply to enforcement actions which are otherwise subject to administrative or judicial appeal, except that these Dispute Resolution provisions shall apply in the event of the assessment of stipulated penalties under Article IX.

A. If resolution cannot be achieved at the project manager level within thirty (30) days of the receipt of DOE's objection, the dispute may be elevated to the Interagency Management Integration Team (IAMIT). Prior to the expiration of the thirty (30) day period DOE shall submit a written statement of dispute to the IAMIT thereby elevating the dispute to the IAMIT for resolution. This statement shall set forth the nature of the dispute, DOE's position on the dispute, supporting information and the history of the attempted resolution. The IAMIT will serve as a forum for resolution of disputes for which agreement has not been reached through informal Dispute Resolution. The Parties agree to utilize the Dispute Resolution process only

in good faith and agree to expedite, to the extent possible, the Dispute Resolution process whenever it is used. Any challenge as to whether a dispute is raised in good faith shall be subject to the provisions of this Article and addressed as part of the underlying dispute.

B. The Ecology designated member of the IAMIT is the Program Manager for the Nuclear Waste Program. DOE's designated member shall be the Assigned Executive Manager. Notice of any delegation of authority from a Party's designated member on the IAMIT shall be provided to the other Party.

C. During the period preceding the submittal of the written statement to the IAMIT, the Parties may engage in informal Dispute Resolution among the project managers. During this informal Dispute Resolution period, the Parties may meet as many times as necessary to discuss and attempt resolution of the dispute.

D. Following elevation of a dispute to the IAMIT, the IAMIT shall have twenty-one (21) days to unanimously resolve the dispute. If the IAMIT is unable to unanimously agree on a resolution of the dispute, the Director of Ecology shall make a final written decision or written determination no more than thirty-five (35) days after submission of the written statement of the dispute to the IAMIT. Upon request and prior to resolution of the dispute, Ecology's Assistant Director for Waste Management shall meet with the Deputy Manager of U.S. Department of Energy, Richland Operations Office (DOE-RL) to discuss the matter. Any such meeting shall not extend the deadline by which the Director of Ecology shall make a final decision or determination. All Parties agree that this final decision or determination shall be deemed to have been decided as an adjudicative proceeding and that DOE may challenge Ecology's final decision or determination as provided by and subject to the

standards contained in Ch. 34.05 RCW. If DOE objects to the decision or determination, DOE may file an appeal, at DOE's discretion, in either the Pollution Control Hearing Board (PCHB) or in the courts. If DOE elects to file an appeal from the decision directly in the courts, Ecology agrees that it will not raise an argument that initial jurisdiction of the matter should lie with the PCHB. For all disputes requiring a final decision or determination by the Director of Ecology, Ecology shall prepare an agency record in accordance with RCW 34.05.476. The agency record for review of such final decision or determination shall consist of the following documents: (1) the Ecology disapproval that DOE disputes; (2) the written notice of objection initiating the dispute; (3) the written statement of dispute, including all attachments; (4) any correspondence between project managers concerning the dispute; (5) IAMIT meeting minutes concerning the dispute, with attachments; (6) all other documents identified by Ecology as being considered before the final decision or determination and used as a basis for the decision or determination; (7) the Director of Ecology's final written decision or determination; and (8) this Agreement. The agency record shall constitute the basis for judicial review regarding the director's final decision or determination in accordance with RCW 34.05.558.

E. Any deadline in the Dispute Resolution process may be extended with the consent of Ecology and DOE.

F. The pendency of any dispute under this Article shall not affect DOE's responsibility for timely performance of the work required by this Agreement, except that, when DOE has delivered a signed change request to Ecology ninety (90) days or more in advance of when a milestone or other enforceable schedule or deadline under this Agreement is due and Ecology's

action on the change request has been disputed under this Article, the time period for completion of work directly affected by such dispute shall be extended for at least a period of time equal to the actual time taken to resolve any good faith dispute beyond seventy-four (74) days. In accordance with the procedures specified in Section 12 of the Action Plan, the Parties may agree to extend or postpone any milestone or other enforceable schedule or deadline under this Agreement during the pendency of any dispute. All elements of the work required by this Agreement which are not directly affected by the dispute shall continue and be completed in accordance with this Agreement.

G. In the event that Ecology assesses stipulated penalties under Article IX and DOE disputes the matter under this Article VIII, stipulated penalties with respect to the disputed matter shall continue to accrue but payment shall be stayed pending resolution of the dispute. Notwithstanding the stay of payment, stipulated penalties shall accrue from the first day of noncompliance with any applicable provision of the Agreement. In the event that DOE does not prevail on the disputed issue, stipulated penalties may be assessed and shall be paid as provided in Article IX.

H. When Dispute Resolution is in progress, work affected by the dispute will immediately be discontinued if the Ecology project manager requests in writing that such work be stopped because, in Ecology's opinion, such work is inadequate or defective, and such inadequacy or defect is likely to yield an adverse affect on human health and environment, or is likely to have a substantial adverse affect on the remedy selection or implementation process. To the extent possible, Ecology shall give DOE prior notification that a work stoppage request is forthcoming. After stoppage of work, if DOE

believes that the work stoppage is inappropriate, DOE may meet with Ecology to discuss the work stoppage. Within fourteen (14) days of this meeting, the Ecology project manager will issue a final written decision with respect to the stoppage. Upon receipt of this final written decision of the Ecology project manager, DOE may initiate Dispute Resolution at the IAMIT level.

I. DOE shall abide by all terms and conditions of a final resolution of any dispute. Within twenty-one (21) days of the final resolution of any dispute under this Article, or under any appeal action, DOE shall incorporate the resolution and final determination into the appropriate plan, schedule or procedure(s) and proceed to implement this Agreement according to the amended plan, schedule or procedure(s). DOE shall notify Ecology as to the action(s) taken to comply with the final resolution of a dispute.

J. Under the applicable portions of the Action Plan attached to this Agreement, Ecology will make final written decisions or determinations regarding compliance with Ch. 70.105 RCW. Disputes regarding these decisions or determinations shall be resolved utilizing the procedures described above, except as otherwise specifically provided in this Agreement. Ecology will also be making certain decisions and determinations as lead regulatory agency at certain CERCLA units pursuant to the Action Plan. Disputes involving Ecology's CERCLA decisions or determinations shall be resolved utilizing the Dispute Resolution process in Part Two, Article VIII except as otherwise provided in Part Four.

K. When DOE submits RCRA Permit applications, closure plans, and post-closure plans required under Ch. 70.105 RCW which are deficient, Ecology, as appropriate, may respond with a Notice of Deficiency (NOD) documenting

revisions necessary for compliance, or may, in the event the submission is found by Ecology to be not in good faith or to contain significant deficiencies, assess stipulated penalties in accordance with Article IX. In the event that NOD(s) are issued, the first two NODs on any submittal shall not be subject to the formal Dispute Resolution process. Any subsequent NOD may be so subject. Ecology and DOE may agree, however, to subject any NOD to Dispute Resolution.

L. In computing any period of time prescribed in this Dispute Resolution process, the day a document is received shall not be included. The last day of the period so computed shall be included, unless it is a Saturday, Sunday, or a legal holiday, in which case the period runs until the end of the next day that is neither a Saturday, Sunday nor a legal holiday.

ARTICLE IX. STIPULATED DANGEROUS WASTE PENALTIES

31. In the event that DOE fails to submit a Primary Document pursuant to the appropriate timetable or deadline or fails to comply with a term or condition of Part Two of this Agreement or Part Three Corrective Action requirements including milestones, Ecology may assess a stipulated penalty against DOE. A stipulated penalty may be assessed in an amount up to $5,000 for the first week (or part thereof), and up to $10,000 for each additional week (or part thereof) for which a failure set forth in this Paragraph occurs.

If the failure in question is not already subject to Dispute Resolution at the time such assessment is received, DOE shall have seven (7) days after receipt of the assessment to invoke Dispute Resolution on the question of whether the failure did in fact occur. DOE shall not be liable

for the stipulated penalty assessed by Ecology if the failure is determined, through the Dispute Resolution process, not to have occurred. No assessment of a stipulated penalty shall be final until the conclusion of Dispute Resolution procedures on DOE's failure to comply.

32. The annual reports required by Section 120(e)(5) of CERCLA shall include, with respect to each final assessment of a stipulated penalty against DOE under this Agreement, each of the following:

A. The facility responsible for the failure;

B. A statement of the facts and circumstances giving rise to the failure;

C. A statement of any administrative or other corrective action taken at the relevant facility, or a statement of why such measures were determined to be inappropriate;

D. A statement of any additional action taken by or at the facility to prevent recurrence of the same type of failure; and

E. The total dollar amount of the stipulated penalty assessed for the particular failure.

33. Stipulated penalties assessed pursuant to this Article shall be payable to the Hazardous Waste Control and Elimination account of the State Treasury.

34. All funds collected by the State from DOE penalties under this Agreement shall be used by the State as provided by the Federal Facility Compliance Act, Section 102(b).

35. In no event shall this Article give rise to a stipulated penalty in excess of the amount set forth in RCRA Section 3008.

36. This Section shall not affect DOE's ability to request an extension of a timetable, deadline, or schedule pursuant to any Section of this Agreement. No penalty shall be assessed for a violation of a timetable, deadline or schedule caused by an event of force majeure as defined under Article XLVII (Force Majeure).

37. Nothing in this Agreement shall be construed to render an employee or authorized representative of DOE personally liable for the payment of any stipulated penalty assessed pursuant to this Article.

38. Nothing in this Agreement shall be construed as prohibiting, altering, or in any way limiting the ability of Ecology to seek any remedies or sanctions available by virtue of DOE's violation of this Agreement or, for matters not specifically addressed by this Agreement, of the statutes and regulations upon which it is based, including but not limited to penalties, pursuant to Ch. 70.105 RCW; provided, however, that the assessment of stipulated penalties shall preclude Ecology from seeking any other penalty payments from DOE under Ch. 70.105 RCW for the same violations.

ARTICLE X. ENFORCEABILITY

39. In the event DOE or Ecology fails to comply with the RCRA provisions of this Agreement, the other Party may initiate judicial enforcement of the Agreement. In enforcing the RCRA provisions of this Agreement, a Party may seek injunctive relief, specific performance, sanctions or other relief available under applicable law. DOE and Ecology, prior to seeking enforcement, shall utilize the Dispute Resolution procedures of Article VIII, except as provided in Article XLVI (Reservation of Rights).

40. Part Two, enforceable major and interim milestones, and other

RCRA provisions of this Agreement including those related to statutory requirements, regulations, permits, closure plans, or corrective action, including record keeping and reporting shall be enforceable by citizen suits under Section 7002(a)(1)(A) of RCRA, including actions by the State of Washington, Ecology or other state agencies. DOE agrees that the State or one of its agencies is a "person" within the meaning of Section 7002(a) of RCRA.

41. The Parties agree that the RCRA provisions set forth in this Agreement which address record keeping, reporting, enforceable milestones (excluding target dates), regulations, permits, closure plans, or corrective action are RCRA statutory requirements and are thus enforceable by the Parties.

ARTICLE XI. SCHEDULE

42. A. Tank Waste Remediation System milestones will be established in accordance with Section 11.8 of the Action Plan.

B. Except as provided above, specific major and interim milestones, as agreed to by the Parties, are set forth in the Action Plan.

ARTICLE XII. COMMON TERMS

43. The provisions of Parts Four, and Five, Articles XXIII through LII below, apply to this Part Two and are incorporated herein by reference.

PART THREE

REMEDIAL AND CORRECTIVE ACTIONS

ARTICLE XIII. FINDINGS AND DETERMINATIONS

44. The following paragraphs of this Article constitute a summary of the facts upon which EPA and Ecology are proceeding for purposes of Part Three of this Agreement. None of the facts related herein shall be considered admissions by any Party. This Article contains findings by EPA and Ecology, and shall not be used by any person related or unrelated to this Agreement for purposes other than determining the basis of this Agreement.

A. In and/or before 1943, the United States acquired approximately 560 square miles of land, now known as the Hanford Site. The DOE and its predecessors have operated Hanford continuously since 1943, mainly for the production of special nuclear materials for the national defense.

B. Since the establishment of the Hanford Site in 1943, materials subsequently defined as hazardous substances, pollutants and contaminants by CERCLA, materials defined as hazardous waste and constituents by RCRA and/or Ch. 70.105 RCW, have been produced, and disposed of, or released, at various locations at the Hanford Site, including TSD Units.

C. Certain hazardous substances, contaminants, pollutants, hazardous wastes and constituents remain on and under the Hanford Site, and have been detected in groundwater and surface water at the Hanford Site.

D. Groundwater, surface water and air pathways provide routes for the migration of Hazardous Substances, pollutants, contaminants, and Hazardous Wastes and constituents from the Hanford Site into the environment.

E. An estimated five billion cubic yards of solid and dilute liquid wastes, which include hazardous substances, mixed waste, and hazardous waste and constituents have been disposed of at the Hanford Site. Significant above-background concentrations of hazardous substances, including chromium, strontium-90, tritium, iodine-129, uranium, cyanide, carbon tetrachloride, nitrates, and technetium-99 have been detected in the groundwater (unconfined aquifer) at the Hanford Site. These materials have toxic, carcinogenic, mutagenic, or teratogenic effects on humans and other life forms.

F. The Hanford Site is adjacent to the Columbia River. Approximately 70,000 people use groundwater and surface water obtained within three miles of the Hanford Site for drinking. This same water is used to irrigate approximately 1,000 acres.

G. The migration of such materials presents a threat to the public health, welfare and the environment.

H. On or about September 14, 1987, DOE voluntarily undertook and provided to EPA information and data on the Hanford Site, which supported nomination of four aggregate areas on the Hanford Site for inclusion on the NPL, pursuant to CERCLA. EPA, by letter dated April 22, 1988, deemed this information and data to be the functional equivalent of a Site Preliminary Assessment and Site Investigation (PA/SI). EPA subsequently placed the Hanford Site on the Federal Agency Hazardous Waste Compliance Docket, 52 Fed. Reg. 4280 (February 12, 1988). On June 24, 1988, EPA proposed inclusion of four subareas of the Hanford Site on the NPL.

45. Based on the Findings of Fact set forth in Paragraph 44, and the information available, and without admission by DOE, EPA and Ecology have determined the following:

A. DOE is a person as defined in Section 101(a) of CERCLA, 42 U.S.C. Sec. 9601(a).

B. The DOE Hanford Site located in Washington State constitutes a facility within the meaning of 42 U.S.C. Sec. 9601(9).

C. Hazardous Substances, and pollutants or contaminants within the meaning of 42 U.S.C. Secs. 9601(14) and (33) and 9604(a)(2) have been disposed of or released at the Hanford Site.

D. There have been releases and there continue to be releases and threatened releases of Hazardous Substances, and pollutants or contaminants into the environment within the meaning of 42 U.S.C. Secs. 9601(22), 9604, 9606 and 9607 at and from the Hanford Site.

E. With respect to those releases and threatened releases, DOE is a responsible person within the meaning of 42 U.S.C. Sec. 9607.

F. The Hanford Site includes certain hazardous waste treatment, storage, and disposal Units authorized to operate under Section 3005(e) of RCRA, 42 U.S.C. Sec. 6925(e), and Ch. 70.105 RCW and 173-303 WAC, which are subject to the permit requirements of RCRA.

G. Certain wastes and constituents at the Hanford Site are Hazardous Wastes or hazardous constituents thereof as defined by Section 1004(5) of RCRA, 42 U.S.C. Sec. 6903(5) and 40 CFR Part 261. There are also Hazardous Wastes or hazardous constituents at the Hanford Site within the meaning of Ch. 70.105 RCW and 173-303 WAC.

H. There is or has been a release of Hazardous Wastes and/or hazardous constituents into the environment from the Hanford Site.

I. The Hanford Site constitutes a facility within the meaning of Sections 3004 and 3005 of RCRA, 42 U.S.C. Secs. 6924 and 6925, and RCW 70.105.

J. The DOE is the owner of the Hanford Site.

K. The submittals, actions, schedules, and other elements of work required or imposed by this Agreement are reasonable and necessary to protect the public health and welfare and the environment.

ARTICLE XIV. WORK

46. DOE agrees to perform the work described in this Article XIV in accordance with the Action Plan. EPA and Ecology agree to provide DOE with guidance and timely response to requests for guidance to assist DOE in its performance of work under Part Three of this Agreement. Ecology will administer RCRA Subtitle C corrective action provisions in accordance with this Agreement and issue all future modifications to the corrective action portion of the TSD permit. The selection of remedial or corrective action shall be governed by Part Three of this Agreement. Disputes between DOE and Ecology arising under this Part which involve RCRA corrective action shall be resolved in accordance with Article VIII (Resolution of Disputes).

47. Interim Response Actions. DOE agrees that it shall develop and implement Interim Response Actions (IRAs) at operable units being managed under CERCLA corrective action authority, as required by the lead regulatory agency, and as set forth in Chapter 7.0 of the Action Plan. The IRAs shall be consistent with the purposes set forth in Article III (Purpose) of this Agreement. In the event of dispute by DOE, the final selection of the interim response action(s) shall be made by the lead regulatory agency, and shall not be subject to dispute by the Parties. IRAs shall, to the greatest extent practicable, attain ARARs and be consistent with and contribute to the efficient performance of final response actions. A dispute arising under this Article on any matter other than final selection of an IRA shall be resolved pursuant to Article VIII where Ecology is the lead regulatory agency and

Article XVI where EPA is the lead regulatory agency, except as provided elsewhere in this Agreement.

48. Interim Measures. DOE agrees that it shall develop and implement Interim Measures (IMs) at operable units being managed under RCRA corrective action authority, as required by Ecology, and as set forth in Chapter 7.0 of the Action Plan. The IMs shall be consistent with the purposes set forth in Article III (Purpose) of this Agreement. IMs shall to the greatest extent practicable be consistent with and contribute to efficient performance of corrective actions. A dispute arising under this paragraph shall be resolved pursuant to Article VIII.

49. RCRA Facility Assessments. DOE agrees it shall develop, implement and report upon RCRA Facility Assessments (RFAs) which comply with applicable requirements of RCRA, the RCRA regulations, and pertinent written guidance and established written EPA and Ecology policy, and which are in accordance with the requirements and time schedules set forth in the Action Plan. Such assessment may be done for an entire Operable Unit, or individual Waste Management Units within an Operable Unit.

50. Remedial Investigations. DOE agrees it shall develop, implement and report upon remedial investigations (RIs) which comply with applicable requirements of CERCLA, the NCP, and pertinent written guidance and established written EPA policy, and which is in accordance with the requirements and time schedules set forth in the Action Plan.

51. RCRA Facility Investigations. DOE agrees it shall develop, implement and report upon RCRA facility investigations (RFIs) which comply with applicable requirements of RCRA, the RCRA regulations, and pertinent written guidance and established written EPA and Ecology policy, and which is

in accordance with the requirements and time schedules set forth in the Action Plan.

52. Feasibility Studies. DOE agrees it shall design, propose, undertake and report upon feasibility studies (FSs) which comply with applicable requirements of CERCLA, the NCP, and relevant guidance and established EPA policy, and which is in accordance with the requirements and time schedules set forth in the Action Plan.

53. Corrective Measures Studies. DOE agrees it shall design, propose, undertake and report upon corrective measure studies (CMSs) which comply with applicable requirements of RCRA, the RCRA regulations, and relevant written guidance and established written EPA and Ecology policy, and which is in accordance with the requirements and time schedules set forth in the Action Plan.

54. Remedial and Corrective Actions. DOE shall develop and submit its proposed remedial action (or corrective action) alternative following completion and approval of an RI and FS (or RCRA RFI and CMS), in accordance with the requirements and schedules set forth in the Action Plan. If Ecology is the lead regulatory agency, it will recommend the CERCLA remedial action(s) it deems appropriate to EPA. The EPA Administrator, in consultation with the DOE and Ecology, shall make final selection of the CERCLA remedial action(s), which shall not be subject to dispute. In accordance with the Action Plan, Ecology in consultation with DOE shall select the RCRA corrective action(s). The final selection of RCRA corrective action(s) by Ecology shall be final and not subject to dispute. Notwithstanding this Article, or any other Article of this Agreement, the State may seek judicial review of an interim or final remedial action in accordance with Sections 113 and 121 of CERCLA, 42 U.S.C. Secs. 9613 and 9621.

55. Implementation of Remedial and Corrective Actions. Following final selection, DOE shall design, propose and submit to the lead regulatory agency, a detailed plan for implementation of each selected remedial action(s) and RCRA corrective action(s), which shall include operations and maintenance plans, appropriate timetables and schedules. Following review and approval by the lead regulatory agency, DOE shall implement the remedial action(s) and RCRA corrective action(s) in accordance with the requirements and time schedules set forth in the Action Plan to this Agreement. A dispute arising under this Article on any matter other than EPA's final selection of a remedial action shall be resolved pursuant to Article VIII where Ecology is the lead regulatory agency and Article XVI where EPA is the lead regulatory agency.

56. All work described above, whether labeled "remedial action" or "corrective action," and whether performed pursuant to CERCLA and an RI/FS or the RCRA/HSWA equivalent shall be governed by this Part Three. CERCLA remedial action and, as appropriate, HSWA corrective action shall meet ARARs in accordance with CERCLA Section 121.

57. Notwithstanding any part of this Agreement, Ecology may obtain judicial review of any final decision of EPA on selection of a final remedial action at any Operable Unit pursuant to Section 113 of CERCLA. Ecology also reserves the right to obtain judicial review of any ARAR determination pursuant to Section 121 of CERCLA.

ARTICLE XV. REVIEW OF DOCUMENTS

58. The provisions of Section 9.0 of the Action Plan establish the procedures that shall be used by DOE, EPA, and Ecology to provide the Parties with appropriate notice, review, comment and response to comments regarding

RI/FS, Remedial Design and Remedial Action (RD/RA) documents (or RCRA Corrective Action equivalent) specified as either Primary or Secondary Documents in the Action Plan. All primary documents shall be subject to Dispute Resolution in accordance with Article VIII where Ecology is the lead regulatory agency and Article XVI where EPA is the lead regulatory agency. Secondary documents are not subject to Dispute Resolution. In accordance with Section 120 of CERCLA, DOE will be responsible for issuing primary and secondary documents to the lead regulatory agency. The lead regulatory agency shall be responsible for consolidating comments and providing responses to DOE on all required submittals for the Operable Units for which it is the designated lead regulatory agency. No guidance, suggestions, or comments by Ecology or EPA will be construed as relieving DOE of its obligation to obtain formal approval required by Part Three of this Agreement.

ARTICLE XVI. RESOLUTION OF DISPUTES

59. If a dispute arises under Part Three of this Agreement with respect to a matter for which EPA is the lead regulatory agency, or as specifically set forth elsewhere in this Agreement, the procedures of this Article shall apply. These procedures shall not apply, however, where otherwise specifically excluded. EPA and DOE shall make reasonable efforts to informally resolve disputes. Except as provided in Paragraph 46, if resolution cannot be achieved informally, the procedures of this Article shall be implemented to resolve a dispute. These Dispute Resolution provisions shall not apply to RCRA permit actions which are otherwise subject to administrative or judicial appeal. These Dispute Resolution provisions shall not apply to enforcement actions which are otherwise subject to administrative

or judicial appeal, except that these Dispute Resolution provisions shall apply in the event of the assessment of stipulated penalties.

A. Within thirty (30) days after: (1) the period established for review of a primary document pursuant to Article XV (Review of Documents), or (2) any action which leads to or generates a dispute, the disputing Party shall submit to the IAMIT a written statement setting forth the nature of the dispute, the work affected by the dispute, the disputing Party's position with respect to the dispute, the information the disputing Party is relying upon to support its position, and a description of all steps taken to resolve the dispute.

B. Prior to issuance of a written statement of dispute, the disputing Party shall engage the other Party in informal Dispute Resolution among the project managers. During this informal Dispute Resolution period the EPA and DOE shall meet as many times as necessary to discuss and attempt resolution of the dispute.

C. If agreement cannot be reached on any issue within the informal Dispute Resolution period, the disputing Party shall forward the written statement of dispute to the IAMIT within the thirty (30) days specified in subparagraph A above, thereby elevating the dispute to the IAMIT for resolution.

D. The IAMIT will serve as a forum for resolution of disputes for which agreement has not been reached through informal dispute resolution. EPA and DOE shall each designate in writing one individual and an alternate to serve on the IAMIT. The individuals designated to serve on the IAMIT shall be employed at the Executive Managers level. The EPA representative on the IAMIT is the Program Manager, Hanford Project Office of EPA Region 10. DOE's representative on the IAMIT will be the Assigned Executive Manager.

Written notice of any delegation of authority from a Party's designated representative on the IAMIT shall be provided to the other Party pursuant to the procedures of Article XXXIII (Notification).

E. Following elevation of a dispute to the IAMIT, the IAMIT shall have twenty-one (21) days to unanimously resolve the dispute and issue a written decision. If the IAMIT is unable to unanimously resolve the dispute within this twenty-one 21-day period, the written statement of dispute shall be forwarded by the disputing Party within seven (7) days to the Senior Executive Committee (SEC) for resolution.

F. The SEC will serve as the forum for resolution of disputes for which agreement has not been reached by the IAMIT. EPA's representative on the SEC is the Director, Office of Environmental Clean Up of EPA Region 10. DOE's representative on the SEC is the DOE Richland Operations Office Deputy Manager. The SEC members shall, as appropriate, confer, meet and exert their best efforts to resolve the dispute. The SEC shall have twenty-one (21) days to unanimously resolve the dispute.

G. If unanimous resolution of the dispute is not reached within twenty-one (21) days, EPA's Regional Administrator shall issue a final written decision resolving the dispute within fourteen (14) days. This authority can not be delegated. The time for issuing a final decision may be extended by EPA upon notice to the other Parties.

H. Within fourteen (14) days of the Regional Administrator's issuance of the final written decision on the dispute, DOE may request that the Administrator of EPA resolve the dispute if the Secretary of Energy determines that the decision of the Regional Administrator has significant national policy implications. The request must be in writing, and must identify the basis for the determination by the Secretary that the decision

has significant national policy implications. If no such request is made within the fourteen (14) day period, DOE shall be deemed to have agreed with the Regional Administrator's written decision. If such a request is made, the Administrator will review and resolve the dispute in accordance with applicable law and regulations within twenty-one (21) days. Upon request and prior to resolving the dispute, the Administrator may meet and confer with the DOE to discuss the issues under dispute. The Administrator shall provide five (5) days advance notice of such meeting. Upon resolution, the Administrator shall provide a written final decision setting forth resolution of the dispute. The duties of the EPA Administrator and Secretary of Energy set forth in this Article XVI shall not be delegated.

I. The pendency of any dispute under this Part shall not affect DOE's responsibility for timely performance of the work required by this Agreement, except that, when DOE has delivered a change request to EPA one hundred seven (107) days or more in advance of when a milestone or other enforcement schedule or deadline under this Agreement is due and EPA's action on the change request has been disputed under this Article, the time period for completion of work directly affected by such dispute shall be extended for a period of time usually not to exceed the actual time taken to resolve any good faith dispute beyond ninety-three (93) days. In accordance with the procedures specified in Section 12 of the Action Plan, the Parties may agree to extend or postpone any milestone or other enforceable schedule or deadline under this Agreement during the pendency of any dispute. All elements of the work required by this Agreement which are not directly affected by the dispute shall continue and be completed in accordance with this Agreement.

J. In the event that EPA assesses stipulated penalties under Article XX (Stipulated Penalties) and DOE disputes the matter under this

Article XVI, stipulated penalties with respect to the disputed matter shall continue to accrue but payment shall be stayed pending resolution of the dispute. Notwithstanding the stay of payment, stipulated penalties shall accrue from the first day of noncompliance with any applicable provision of the Agreement. In the event that Energy does not prevail on the disputed issue, stipulated penalties may be assessed and shall be paid as provided in Article XX (Stipulated Penalties).

K. When Dispute Resolution is in progress, work affected by the dispute will immediately be discontinued if the EPA project manager requests in writing that such work be stopped because, in EPA's opinion, such work is inadequate or defective, and such inadequacy or defect is likely to yield an adverse affect on human health and environment, or is likely to have a substantial adverse affect on the remedy selection or implementation process. To the extent possible, EPA shall give DOE prior notification that a work stoppage request is forthcoming. After stoppage of work, if DOE believes that the work stoppage is inappropriate, DOE may meet with the EPA to discuss the work stoppage. Within fourteen (14) days of this meeting, the EPA project manager will issue a final written decision with respect to the stoppage. Upon receipt of this final written decision of the EPA project manager, DOE may initiate Dispute Resolution at the IAMIT level.

L. Within twenty-one (21) days of resolution of any dispute, DOE shall incorporate the resolution and final determination into the appropriate plan, schedule or procedures and proceed to implement this Agreement according to the amended plan, schedule or procedures.

M. Resolution of a dispute pursuant to this Article constitutes final resolution of the dispute and all Parties shall abide by all terms and conditions of such final resolution.

N. Any deadline in the dispute resolution process may be extended with the consent of DOE and EPA.

O. In computing any period of time prescribed in this dispute resolution process, the day a document is received shall not be included. The last day of the period so computed shall be included, unless it is a Saturday, Sunday, or a legal holiday, in which case the period runs until the end of the next day that is neither a Saturday, Sunday nor a legal holiday.

ARTICLE XVII SCHEDULE

60. DOE shall commence Remedial Investigations (RIs) and Feasibility Studies (FSs) for one Operable Unit of each subarea of the Hanford Site included on the NPL within six (6) months after such listing on the NPL. Schedules for such RIs and FSs, are set forth in the Action Plan. The Parties agree that this phased schedule satisfies Section 120(e)(1) of CERCLA. RI/FS schedules for each Operable Unit will be published by the lead regulatory agency, as provided in Section 120(e)(1) of CERCLA.

61. DOE shall commence remedial action within fifteen (15) months after completion of the RI/FS (including EPA selection of the remedy) for the first priority Operable Unit, in accordance with Section 120(e)(2) of CERCLA and the schedule in the Action Plan. DOE shall complete the remedial action as expeditiously as possible, as required by CERCLA Section 120(e)(3). In accordance with the schedule(s) in the Action Plan, subsequent remedial action at other operable units shall follow and be completed as expeditiously as possible as subsequent RI/FSs are completed and approved. The Parties agree that this phased schedule satisfies Section 120(e)(2) and (3) of CERCLA.

62. Specific major and interim milestones and schedules, as agreed to by the Parties, are set forth in the Action Plan.

ARTICLE XVIII. PERMITS

63. The Parties recognize that under CERCLA Secs. 121(d) and 121(e)(1), and the NCP, portions of the response actions called for by this Agreement and conducted entirely on the Hanford Site are exempted from the procedural requirement 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 which would have been included in any such permit.

64. When DOE proposes a response action to be conducted entirely on the Hanford Site, which in the absence of CERCLA Sec. 121(e)(1) and the NCP would require a federal or state permit, DOE shall include in the submittal:

A. Identification of each permit which would otherwise be required;

B. Identification of the standards, requirements, criteria, or limitations which would have had to have been met to obtain each such permit;

C. Explanation of how the response action proposed will meet the standards, requirements, criteria or limitations identified in Subparagraph B immediately above.

65. Upon the request of DOE, the lead regulatory agency will provide its position with respect to Subparagraphs 64 B and C above in a timely manner.

66. This Article is not intended to relieve DOE from any applicable requirements, including Section 121(d)(3) of CERCLA, for the shipment or movement of a hazardous waste or substance off the Hanford Site. DOE shall obtain all permits and comply with applicable federal, state or local laws for such shipments. DOE shall submit timely applications and requests for such

permits and approvals. Disposal of hazardous substances off the Hanford Site shall comply with DOE's Policy on Off-Site Transportation, Storage and Disposal of Nonradioactive Hazardous Waste dated June 24, 1986, or as subsequently amended, and the EPA Off-Site Response Action Policy dated May 6, 1985, 50 Federal Register 45933 (November 5, 1985), as amended by EPA's November 13, 1987 "Revised Procedures for Planning and Implementing Off-Site Response Actions," and as subsequently amended, to the extent required by CERCLA.

67. DOE shall notify the lead regulatory agency in writing of any permits required for off-Hanford activities related to this Agreement as soon as DOE-RL becomes aware of the requirement. Upon request, DOE shall provide the lead regulatory agency with copies of all such permit applications and other documents related to the permit process.

68. If a permit which is necessary for implementation of off-Hanford activities of this Agreement is not issued, or is issued or renewed in a manner which is materially inconsistent with the requirements of this Agreement, DOE shall notify the lead regulatory agency of its intention to propose modifications to this Agreement to comply with the permit (or lack thereof). Notification by DOE of its intention to propose modifications shall be submitted within seven (7) calendar days of receipt by DOE of notification that: (1) a permit will not be issued; (2) a permit has been issued or reissued; (3) a final determination with respect to any appeal related to the issuance of a permit has been entered. Within thirty (30) days from the date it submits its notice of intention to propose modifications, DOE shall submit to the lead regulatory agency its proposed modifications to this Agreement with an explanation of its reasons in support thereof.

69. The lead regulatory agency shall review DOE's proposed

modifications to this Agreement pursuant to this Article. If DOE submits proposed modifications prior to a final determination of any appeal taken on a permit needed to implement this Agreement, the lead regulatory agency may elect to delay review of the proposed modifications until after such final determination is entered. If the lead regulatory agency elects to delay review, DOE shall continue implementation of this Agreement as provided in the following paragraph.

70. During any appeal of any permit required to implement this Agreement or during review of any of DOE's proposed modifications as provided in the preceding paragraph, DOE shall continue to implement those portions of this Agreement which can be reasonably implemented pending final resolution of the permit issue(s).

ARTICLE XIX. RECOVERY OF EPA CERCLA RESPONSE COSTS

71. EPA and DOE agree to amend this section at a later date in accordance with any subsequent resolution of the currently contested issue of EPA cost reimbursement.

ARTICLE XX. STIPULATED PENALTIES

72. In the event that DOE fails to submit a CERCLA primary document pursuant to the appropriate timetable or deadline in accordance with Part Three of this Agreement, or fails to comply with a term or condition of Part Three of this Agreement which relates to an interim or final remedial action, including milestones associated with the development, implementation and completion of an RI or FS, EPA may assess a stipulated penalty against DOE. If Ecology determines that DOE has failed in a manner as set forth above for which it is the lead regulatory agency, Ecology may identify stipulated

penalties to EPA and, unless it is a disputed matter under Paragraph 73, these penalties shall be assessed in accordance with this Article. A stipulated penalty may be assessed in an amount up to $5,000 for the first week (or part thereof), and up to $10,000 for each additional week (or part thereof) for which a failure set forth in this paragraph occurs.

73. Upon determining that DOE has failed in a manner set forth in Paragraph 72 the lead regulatory agency shall notify DOE in writing. If the failure in question is not or has not already been subject to Dispute Resolution either under Part Two or Part Three at the time notice of the assessment of stipulated penalties is received, DOE shall have fifteen (15) days to invoke Dispute Resolution under Part Three on the question of whether the failure did in fact occur. In the event Ecology is the lead regulatory agency the Ecology project manager and the Ecology IAMIT and SEC members shall participate in the Part Three Dispute Resolution process. DOE shall not be liable for the stipulated penalty assessed by EPA if the failure is determined, through the Dispute Resolution process, not to have occurred. No assessment of a stipulated penalty shall be final until the conclusion of dispute resolution procedures on DOE's failure to comply.

74. The annual reports required by Section 120(e)(5) of CERCLA shall include, with respect to each final assessment of a stipulated penalty against DOE under this Agreement, each of the following:

A. The facility responsible for the failure;

B. A statement of the facts and circumstances giving rise to the failure;

C. A statement of any administrative or other corrective action taken at the relevant facility, or a statement of why such measures were determined to be inappropriate;

D. A statement of any additional action taken by or at the facility to prevent recurrence of the same type of failure; and

E. The total dollar amount of the stipulated penalty assessed for the particular failure.

75. Stipulated penalties assessed pursuant to this Article for violations of CERCLA requirements shall be payable to the Hazardous Substances Response Trust Fund from funds authorized and appropriated for that specific purpose.

76. RESERVED

77. In no event shall this Article give rise to a CERCLA stipulated penalty in excess of the amount set forth in CERCLA Section 109.

78. This Article shall not affect DOE's ability to obtain an extension of a timetable, deadline or schedule pursuant to Article XL and in accordance with Section 12.0 of the Action Plan.

79. Nothing in this Agreement shall be construed to render an employee or Authorized Representative of DOE personally liable for the payment of any stipulated penalty assessed pursuant to this Article.

80. Nothing in this Agreement shall be construed as prohibiting, altering, or in any way limiting the ability of EPA to seek any remedies or sanctions available by virtue of DOE's violation of this Agreement or, for matters not specifically addressed by this Agreement, of the statutes and regulations upon which it is based, including but not limited to penalties, pursuant to CERCLA and RCRA; provided, however, that the assessment of stipulated penalties shall preclude EPA from seeking any other penalty payments from DOE under RCRA or CERCLA for the same violations.

ARTICLE XXI. ENFORCEABILITY

81. The Parties agree that compliance with the terms of this Agreement, including all timetables and deadlines associated with this Agreement shall be construed as compliance with CERCLA Section 120(e)(3).

82. The Parties agree that:

A. Upon the effective date of this Agreement, any standard, regulation, condition, requirement or order which has become effective under CERCLA or is incorporated into Part Three of this Agreement (with the exception of any such obligations which are imposed solely pursuant to Subtitle C of RCRA and are not determined by EPA to be ARARs) is enforceable by any person pursuant to CERCLA Section 310, and any violation of such standard, regulation, condition, requirement or order will be subject to civil penalties under CERCLA Secs. 310(c) and 109;

B. All timetables or deadlines, associated with the development, implementation and completion of an RI or FS, shall be enforceable by any person pursuant to CERCLA Section 310 and any violation of such timetables or deadlines will be subject to civil penalties under CERCLA Secs. 310(c) and 109;

C. All terms and conditions of this Agreement which relate to interim or final remedial actions, including corresponding timetables, deadlines or schedules, and all work associated with the interim or final remedial actions, shall be enforceable by any person pursuant to CERCLA Section 310 and any violation of such terms or conditions will be subject to civil penalties under CERCLA Secs. 310(c) and 109; and

D. Any final resolution of a dispute pursuant to Article XVI (Resolution of Disputes) which establishes a term, condition, timetable, deadline or schedule shall be enforceable by any person pursuant to CERCLA

Section 310(c) and any violation of such term, condition, timetable, deadline or schedule will be subject to civil penalties under CERCLA Secs. 310(c) and 109.

83. Nothing in this Agreement shall be construed as authorizing any person to seek judicial review of any action or work where review is barred by any provision of RCRA or CERCLA, including CERCLA Section 113(h).

84. The Parties agree that all Parties shall have the right to enforce the terms of this Agreement in accordance with its provisions.

ARTICLE XXII. COMMON TERMS

85. The provisions of Parts Four and Five, Articles XXIII through LII below, apply to this Part Three and are incorporated herein by reference.

PART FOUR

INTEGRATION OF EPA AND ECOLOGY RESPONSIBILITIES

ARTICLE XXIII. RCRA/CERCLA INTERFACE

86. Part Two of this Agreement requires DOE to carry out RCRA TSD work under the direction and authority of Ecology. Part Three of this Agreement requires DOE to carry out investigations and cleanup of past-practice units through the CERCLA process under the authority of EPA, or through the RCRA Corrective Action process under the authority of Ecology. This Part Four establishes the framework for EPA and Ecology to resolve certain disputes that may arise concerning the respective responsibilities of the two regulatory agencies.

87. EPA and Ecology recognize that there is a potential for the two regulatory agencies to impose conflicting requirements upon DOE, due to the complexities of the Hanford Site (where RCRA TSDs, and past-practice units may be in close proximity to each other) and due to the overlap between the respective authorities of the two regulatory agencies. EPA and Ecology intend to carry out their responsibilities so as to minimize the potential for any such conflicts. Except as otherwise specified in Appendices C and D, either EPA or Ecology shall be lead regulatory agency for oversight of DOE's work for all operable units, TSD groups/units or milestones covered by this Agreement.

ARTICLE XXIV. LEAD REGULATORY AGENCY AND REGULATORY APPROACH DECISIONS

88A. The designation of lead regulatory agency and regulatory process for each operable unit, TSD group/unit or milestone shall be made

through the change process in Section 12.0 of the Action Plan. EPA and Ecology have joint authority to determine the choice of lead regulatory agency and regulatory process, in consultation with DOE, and DOE shall not dispute such joint determinations.

B. If the EPA and Ecology cannot agree on the choice of lead agency and/or regulatory process for any operable unit, TSD group/unit or milestone, then the issue shall enter the dispute resolution process as provided in Article XXVI. If, following such dispute resolution process, EPA and Ecology cannot agree, then the releases and units that are the subject of the dispute shall be considered a matter which Ecology, EPA, and DOE have chosen not to address under this Agreement, and all Parties reserve all rights and authorities with respect to such matters.

89. Except as otherwise specified in Appendices C and D, either EPA or Ecology will serve as lead regulatory agency for each operable unit, TSD group/unit and milestone, and the non lead regulatory agency will generally not be involved. EPA and Ecology will enter into an Memorandum of Understanding (MOU) which will describe the circumstances when the lead regulatory agency and non-lead agency will interact and coordinate activities. These include instances where:

A. The lead regulatory agency has requested the assistance or involvement of the non lead agency;

B. Ecology lacks legal authority to approve or require action, such as approval of a CERCLA remedial action;

C. The non lead agency has a mandatory legal obligation or duty, such as under a permit;

D. EPA is the lead regulatory agency, and Ecology concurrence is sought

for a CERCLA Remedial Action.

Any disputes between EPA and Ecology concerning RCRA matters that cannot be resolved in accordance with the MOU, may be referred by either EPA or Ecology to dispute resolution under Article XXVI. In the event that EPA and Ecology cannot agree on the selection of CERCLA remedial action where Ecology is the lead regulatory agency, DOE will be notified and the dispute will be elevated to the IAMIT and resolved in accordance with Article XVI. For such disputes, the IAMIT and SEC will include the Ecology representatives designated in Article VIII. In the event the matter is elevated to the Administrator for resolution, Ecology will be notified and invited to participate in any meeting with DOE to discuss the issues under dispute.

ARTICLE XXV. PHYSICALLY INCONSISTENT ACTIONS

90. EPA and Ecology intend that neither regulatory agency shall direct actions to be taken at the Hanford Site that are physically inconsistent with other actions directed by either regulatory agency at the Site. This provision applies to any actions required to be taken at the site under RCRA or CERCLA. For the purposes of this Agreement, Physically Inconsistent Action shall mean any action which, if implemented, would reduce the overall effectiveness of other response actions. The setting of priorities for action based on budgetary considerations shall not be used as a factor in determining the presence of physical inconsistency. The provisions of this Article are independent of and do not modify or otherwise affect the provisions of Article XXVIII (RCRA/CERCLA Reservation of Rights).

91. In the event of a dispute between EPA and Ecology over an issue of physical inconsistency, either Party may refer such dispute to the dispute

resolution process at Article XXVI. In resolving a dispute concerning a possible physical inconsistency, the parties shall attempt to resolve the dispute in such a way as to promote timely cleanup and benefit to the net overall environmental quality of the Hanford Site.

If at the conclusion of that dispute resolution process, the Parties have not agreed on a resolution of the dispute, then the releases and activities that are the subject of the dispute shall be considered a matter which the Parties have chosen not to address under this Agreement, and the Parties reserve all rights and authorities with respect to such matters.

ARTICLE XXVI. DISPUTE RESOLUTION

92. Except as otherwise provided in Paragraph 89, Resolution of Dispute between Ecology and EPA shall be resolved in the following manner:

A. On discovery of any dispute between Ecology and EPA, each regulatory agency's project managers shall make reasonable efforts to informally resolve such disputes. If informal resolution cannot be achieved, the disputing Party shall submit a written statement of dispute setting forth the nature of the dispute, the disputing Party's position with respect to the dispute, and the information relied upon to support its position to the IAMIT as described below. Receipt of such a statement by the IAMIT shall constitute formal elevation of the dispute in question to the IAMIT. At such time as the disputing Party submits a statement of dispute to the IAMIT, a copy shall be sent to DOE. The IAMIT will serve as a forum for resolution of disputes for which agreement has not been reached through informal dispute resolution. Ecology and EPA agree to utilize the dispute resolution process only in good faith and agree to expedite, to the extent possible, the Dispute Resolution

process whenever it is used.

B. The Ecology designated representative of the IAMIT is the Program Manager for Nuclear Waste. EPA's designated representative of the IAMIT is the Program Manager, Hanford Project Office of EPA's Region 10. Following elevation of a dispute to the IAMIT, the IAMIT shall have twenty one (21) days to unanimously resolve the dispute. Any successful resolution shall be documented within an additional twenty one (21) days by a jointly signed determination outlining the resolution reached. At such time, a copy of such documentation shall be sent to DOE. If the IAMIT is unable to unanimously agree on a resolution, the members shall forward pertinent information and their respective recommendations to the SEC for resolution.

C. The Ecology designated member of the SEC is the Assistant Director for Waste Management. EPA's designated member of the SEC is the Director, Office of Environmental Clean Up of EPA Region 10. The SEC will serve as the forum for resolution of disputes for which agreement has not been reached by the IAMIT. The SEC members shall, as appropriate, confer, meet and exert their best efforts to resolve the dispute. The DOE-RL Deputy Manager shall meet with the SEC to assist in resolving the dispute. The SEC shall have twenty one (21) days to unanimously resolve the dispute. Any successful resolution shall be documented, within an additional twenty one (21) days, by a jointly signed determination outlining the resolution reached. At such time, a copy of such documentation shall be sent to DOE.

D. Throughout the above dispute resolution process, EPA and Ecology shall consult, as appropriate, with DOE in order to facilitate resolution of disputes.

93. If disputes are not resolved pursuant to this Article, such

disputes shall be subject to Article XXVIII.

94. The pendency of any dispute under this Part shall not affect DOE's responsibility for timely performance of the work required by this Agreement, except that the time period for completion of work directly affected by such dispute shall be extended for a period of time usually not to exceed the actual time taken to resolve any good faith dispute in accordance with the procedures specified herein. All elements of the work required by this Agreement which are not directly affected by the dispute shall continue and be completed in accordance with this Agreement.

ARTICLE XXVII. OTHER DISPUTES AND EPA OVERSIGHT

95. If there are other disputes between Ecology and EPA concerning overlaps between Part Two and Part Three of this Agreement, Ecology and EPA shall use the dispute resolution process in Article XXVI to resolve such disputes.

96. The provisions of this Agreement do not eliminate EPA's responsibility for oversight of Ecology's exercise of its authorized RCRA authorities. In carrying out any such oversight, EPA shall follow the statutory and regulatory procedures for such oversight and the provisions of this Agreement, including, as appropriate, the Dispute Resolution process in Article XXVI.

ARTICLE XXVIII. RCRA/CERCLA RESERVATION OF RIGHTS

97. If EPA and Ecology are unable to resolve jointly any dispute arising under this Part, then each regulatory agency reserves its rights to impose its requirements directly on DOE, to defend the basis for those

requirements, and to challenge the other regulatory agency's conflicting requirements. In such event, DOE reserves its right to raise any defenses available.

98. EPA and Ecology each reserve its right after utilizing the Dispute Resolution process in Part Four, to seek judicial review of a proposed decision or action taken with respect to corrective or remedial actions at any given operable unit on the grounds that either EPA or Ecology claims that such proposed decision or action conflicts with its respective laws governing protection of human health and/or the environment. It is the understanding of the Parties that this reservation is intended to provide for challenges where the adequacy of protection of human health and the environment or the means of achieving such protection is at issue.

PART FIVE

COMMON PROVISIONS

ARTICLE XXIX. RECOVERY OF STATE COSTS

99. DOE agrees to reimburse Ecology for all of its costs related to the implementation of this Agreement as provided below:

A. Reimbursement of Department of Ecology RCRA Costs:

1. DOE agrees to pay to the appropriate account of the Treasury of the State of Washington, all reasonable fees and other service charges which would be payable by any person managing hazardous and/or radioactive mixed waste under applicable Washington law, including the mixed waste management fee assessed pursuant to RCW 70.105.280 and chapter 173-328 WAC. Program elements or activities for which the mixed waste management fee may be assessed include (a) office, staff, and staff support for the purposes of facility or unit permit development, review, and issuance, and (b) actions taken to determine and ensure compliance with the state's hazardous waste management act, as detailed in WAC 173-328-040. In the event DOE disputes any fees or service charges by Ecology, DOE may contest the disputed fees or service charges in accordance with the appeal procedures provided under applicable law.

2. Ecology shall provide DOE-RL by June 15 of each year a preliminary billing statement reflecting the fee to be assessed to DOE-RL for the upcoming twelve-month period, by quarter, beginning July 1. Ecology shall, prior to September 15, notify DOE-RL of actual adjustments arising from the previous twelve-month period's cost performance against amounts paid by DOE-RL in response to the previous October's billing statement. Ecology shall after October 1 send DOE-RL a final billing statement which identifies the

mixed waste management fee costs assessed to DOE-RL for the twelve-month period beginning the previous July 1. This statement shall be accompanied by an itemization of changes from the preliminary statement sent prior to June 15. DOE-RL shall promptly pay this billing.

3. Ecology shall by January 31 of each year provide DOE-RL a forecast of planned waste management fees chargeable to DOE-RL. The forecasts shall be annual projections for a period of seven federal fiscal years beginning the previous October 1. Such forecasts shall include supporting information which explains significant annual changes in proposed funding requirements. The Parties acknowledge that these forecasts are estimates and that actual fees may differ from the forecasts.

B. Reimbursement of Department of Ecology CERCLA Costs:

1. DOE agrees to reimburse Ecology for its CERCLA costs directly related to implementation of this Agreement up to the amount authorized through a yearly grant by DOE to Ecology.

2. By July 1, Ecology shall submit to DOE a proposed workscope and estimates of cost to be incurred relating to CERCLA work to be performed under this Agreement by Ecology for the upcoming period October 1 to September 30. DOE shall respond, in writing, with questions regarding this proposal, no later than August 1. The two Parties shall work diligently toward completion of grant negotiations leading to placement of award by October 1. DOE shall award grant funds to Ecology for the upcoming budget period from October 1, to September 30, in the amount consistent with the negotiated funding. In the event of delay in congressional appropriation and Continuing Resolution, funding under this grant shall be in incremental amounts. Initial funding of 70 percent of the negotiated amount for the grant period will be provided upon receipt of an Office of Management and Budget (OMB) funding allotment. Total approved funding shall be provided to Ecology within 30 days after receipt by

DOE-RL of the final Financial Status Report from Ecology for the previous grant period. All CERCLA costs incurred by Ecology shall be costs directly related to this Agreement and costs not inconsistent with CERCLA and the NCP.

3. In the event that DOE contends that any costs incurred were not directly related to the implementation of this Agreement or were incurred in a manner inconsistent with CERCLA or the NCP, DOE may challenge the costs allowable under the grant to Ecology. If unresolved, Ecology's demand, and DOE's challenge, may be resolved through the appeals procedures set forth in 10 CFR Part 600 and 10 CFR Part 1024.

4. DOE shall not be responsible for reimbursing Ecology for any costs actually incurred in excess of the amount authorized each budget period in the grant award.

5. Ecology shall by January 31 of each year provide DOE-RL a forecast of planned CERCLA grant funding requirements. The forecasts shall be annual projections for a period of seven federal fiscal years beginning the previous October 1. Such forecasts shall include supporting information which explains significant annual changes in proposed funding requirements. The Parties acknowledge that these forecasts are estimates, and that actual grant requests may differ from the forecasts.

C. <u>Reimbursement of other Department of Ecology Costs:</u>

1. DOE agrees to pay justifiable costs incurred by Ecology in the implementation of this Agreement which are not covered by payments made pursuant to subparagraphs A and B above.

2. For such costs that may be recouped through the assessment of a fee, other than a mixed waste fee, DOE agrees to pay the fee assessed in the time permitted by law. In the event DOE disputes any fees assessed by Ecology, DOE may contest the disputed fees in accordance with the appeal procedures provided under applicable law.

3. For costs such as those costs related to Public Involvement, Emergency Preparedness Planning and oversight of Environmental Monitoring that may not be recouped through the assessment of a fee, DOE agrees to reimburse Ecology through a yearly grant. On an annual basis, Ecology shall submit to DOE a proposed cost estimate for work and services, not otherwise covered by subparagraphs A, or B, above, to be performed by the State in the implementation of this Agreement during the upcoming federal fiscal year. Subsequent to review by DOE, DOE shall issue funds to Ecology in an amount consistent with the estimated approved workscope and costs.

4. Ecology shall by January 31 of each year provide DOE-RL a forecast of planned funding requirements for other grants or fees not identified in subparagraphs A and B above. The forecasts shall be in the form of annual projections for a period of seven federal fiscal years beginning the previous October 1. Such forecasts shall include supporting information which explains significant annual changes in proposed funding requirements.

D. Report, Records, and Accounts:

1. Ecology agrees to keep records and books of account, in accordance with generally accepted accounting principles and practices, covering DOE's payment of funds and Ecology's use of such funds under subparagraphs B and C.3 above.

2. Ecology will provide to DOE within 30 days after the end of each quarter and 90 days after the end of each state fiscal year, a Financial Status Report (SF 269, short form) showing the expenditure of DOE funds provided pursuant to subparagraphs B and C.3 above.

3. DOE shall at all reasonable times be afforded access to books and records and to related correspondence, receipts, voucher, memoranda, and other data reflecting the use of DOE funds provided pursuant to subparagraphs B and C.3 above. Ecology shall preserve such books and papers in accordance

with the retention requirements referenced in subparagraph D.4 below.

4. The Comptroller General of the United States or any of his or her duly authorized representatives shall, until the expiration of 3 years after the payment of funds pursuant to subparagraphs B or C.3 above, have access to and the right to examine any directly pertinent books, documents, papers, and records of the State involving transactions covered by subparagraphs B or C.3 above.

5. Expenditures of funds received pursuant to subparagraphs B or C.3 above are subject to the requirements of the Single Audit Act of 1984 (P.L. 98-502) and Office of Management and Budget Circular A-128 (Audits of State and Local Governments).

6. Nothing herein shall be deemed to preclude an audit by the General Accounting Office of any funds received pursuant to subparagraph B or C.3 above.

100. Ecology's performance of its obligations under this Agreement shall be excused if its justifiable costs are not paid as required by this Article.

ARTICLE XXX. ADDITIONAL WORK OR MODIFICATION TO WORK

101. In the event that additional work, or modification to work, including remedial investigatory work and/or engineering evaluation, is necessary to accomplish the objectives of this Agreement, notification and description to such additional work or modification to work shall be provided to DOE. DOE will evaluate the request and notify the requesting Party within thirty (30) days of receipt of such request of its intent and ability to perform such work, including the impact such additional work will have on budgets and schedules. If DOE does not agree that such additional work is required by this Agreement or if DOE asserts such additional work is otherwise inappropriate, the matter shall be resolved in accordance with the Dispute Resolution procedures of Part Two or Part Three of this Agreement, as appropriate. Field modifications, as set forth in the Action Plan, are not subject to this Article. Extensions of schedules may be provided pursuant to Article XL and Section 12.0 of the Action Plan.

102. Any additional work or modification to work determined to be necessary by DOE shall be proposed to the lead regulatory agency by DOE and will be subject to review in accordance with the appropriate Dispute Resolution procedures of Part Two or Part Three of this Agreement, as appropriate, prior to initiation.

103. If any additional work or modification to work will adversely affect work schedules or will require significant revisions to an approved schedule, the lead regulatory agency project manager shall be immediately notified of the situation followed by a written explanation within seven (7) days of the initial notification. Requests for extensions of schedule(s) shall be evaluated in accordance with Article XL.

ARTICLE XXXI. QUALITY ASSURANCE

104. All response work performed pursuant to this Agreement shall be done under the direction and supervision or in consultation with, as necessary, a qualified engineer, hydrogeologist, or other expert, with experience and expertise in hazardous waste management, hazardous waste site investigation, cleanup, and monitoring.

105. Throughout all sample collection, preservation, transportation, and analyses activities required to implement this Agreement, DOE shall use procedures for quality assurance (QA), and for quality control (QC), in accordance with approved EPA methods, including subsequent amendments to such procedures. The DOE shall use methods and analytical protocols for the parameters of concern in the media of interest within detection and quantification limits in accordance with both QA/QC procedures and data quality objectives approved in the work plan, RCRA closure plan or RCRA permit. The lead regulatory agency may require that DOE submit detailed information to demonstrate that any of its laboratories are qualified to conduct the work. The DOE shall assure that the lead regulatory agency (including contractor personnel) has access to laboratory personnel, equipment and records related to sample collection, transportation, and analysis.

ARTICLE XXXII. CREATION OF DANGER

106. If any Party determines that activities conducted pursuant to this Agreement are creating a danger to the health or welfare of the people on the Hanford Site or in the surrounding area or to the environment, that Party may require or order the work to stop. Any such work stoppage or stop work order shall be expeditiously reviewed by DOE and the affected lead regulatory agency(s). Any dispute or nonconcurrence shall be immediately referred to the IAMIT level of the appropriate Dispute Resolution process.

107. If the affected Parties concur in the work stoppage, DOE's

obligations shall be suspended and the time periods for performance of that work, as well as the time period for any other work dependent upon the work which was stopped, shall be extended, pursuant to Section 12.0 of the Action Plan of this Agreement, for such period of time equivalent to the time in which work was stopped, or as agreed to by the Parties.

ARTICLE XXXIII. NOTIFICATION

108. Unless otherwise specified, any report or submittal provided by DOE pursuant to a schedule or deadline identified in or developed under this Agreement (including the Action Plan) shall be sent by certified or overnight express mail, return receipt requested, or hand delivered as required to the address of the lead regulatory agency project manager.

109. Documents sent to the DOE by EPA or Ecology which require a response or activity by DOE pursuant to this Agreement shall be sent by certified or overnight express mail, return receipt requested, or hand delivered as required to the address of the DOE project manager.

ARTICLE XXXIV. RESERVED

110. Reserved

ARTICLE XXXV. SAMPLING AND DATA/DOCUMENT AVAILABILITY

111. The DOE shall transmit the results of laboratory analytical data and non-laboratory data collected pursuant to this Agreement to the lead regulatory agency in an expeditious manner, as specified in Section 9.6 of the Action Plan.

112. DOE shall notify the lead regulatory agency not less than five (5) days in advance of any well drilling, sample collection, or other monitoring activity conducted pursuant to this Agreement.

ARTICLE XXXVI. RETENTION OF RECORDS

113. Each Party to this Agreement shall preserve for a minimum of ten (10) years after termination of this Agreement all of the records in its or its contractors possession related to sampling, analysis, investigations, and monitoring conducted in accordance with this Agreement. After this ten year period, DOE shall notify the EPA and Ecology at least forty-five (45) days prior to destruction or disposal of any such records. Upon request, the Parties shall make such records or true copies available, to the other Parties subject to Article XLV (Classified and Confidential Information).

114. DOE agrees it shall establish and maintain an administrative record at or near Hanford in accordance with CERCLA Sec. 113(k). The administrative record shall be established and maintained in accordance with current and future EPA policy and guidelines. A copy of each document placed in the administrative record will be provided to the lead regulatory agency.

ARTICLE XXXVII. ACCESS

115. Without limitation on any authority conferred on either agency by law, EPA, Ecology and/or their Authorized Representatives, shall have authority to enter the Hanford Site at all reasonable time for the purposes of, among other things: (1) inspecting records, operating logs, contracts and other documents relevant to implementation of this Agreement, subject to Article XLV (Classified and Confidential Information); (2) reviewing the progress of DOE or its response action contractors in implementing this Agreement; (3) conducting such tests as the Ecology and the EPA project managers deem necessary; and (4) verifying the data submitted to EPA and Ecology by DOE. DOE shall honor all requests for access by EPA and Ecology, conditioned only upon presentation of proper credentials, conformance with

Hanford Site safety and security requirement, and shall be conducted in a manner minimizing interference with any operations at Hanford. Any denial of consent to access must be justified in writing within fourteen (14) days of such denial, and arrangements shall be made for access to the facility or area in question as soon as practicable. DOE reserves the right to require EPA and Ecology personnel or representatives to be accompanied by an escort while on the Hanford Site. Escorts shall be provided in a timely manner.

116. To the extent that this Agreement requires access to property not owned and controlled by DOE, DOE shall exercise its authorities to obtain access pursuant to Section 104(e) of CERCLA. DOE shall use its best efforts to obtain signed access agreements for itself, its contractors and agents, and EPA and Ecology and their contractors and agents, from the present owners or lessees in advance of the date such activities are scheduled to commence. DOE shall provide EPA and Ecology with copies of such agreements. With respect to non-DOE property upon which monitoring wells, pumping wells, treatment facilities, or other response actions are to be located, DOE shall use its best efforts to obtain access agreements that: provide that no conveyance of title, easement, or other interest in the property shall be consummated without provisions for the continued operation of such wells, treatment facilities, or other response actions on the property; and provide that the owners of any property where monitoring wells, pumping wells, treatment facilities or other response actions are located shall notify DOE, Ecology, and EPA by certified mail, at least thirty (30) days prior to any conveyance, of the property owner's intent to convey any interest in the property and of the provisions made for the continued operation of the monitoring wells, treatment facilities, or other response actions installed pursuant to this Agreement.

ARTICLE XXXVIII. FIVE-YEAR REVIEW

117. Consistent with CERCLA Sec. 121(c), and in accordance with this Agreement, DOE agrees that the lead regulatory agency may review remedial action(s) for Operable Unit(s) that allow hazardous substances, pollutants or contaminants to remain onsite, no less often than every five (5) years after the initiation of the final remedial action for such Operable Unit to assure that human health and the environment are being protected by the remedial action being implemented. If upon such review it is the judgement of the lead regulatory agency, that additional action or modification of the remedial action is appropriate in accordance with CERCLA Sec. 104 or 106, the lead regulatory agency may require DOE to implement such additional or modified work pursuant to Article XXX (Additional Work).

ARTICLE XXXIX. MODIFICATION OF AGREEMENT

118. Procedures for modifying this Agreement are contained in Section 12 of the Action Plan.

ARTICLE XL. GOOD CAUSE FOR EXTENSIONS

119. Either a timetable and deadline or a schedule shall be modified upon receipt of a timely request for extension and when good cause exists for the requested extension.

120. Good cause exists for an extension when sought in regard to:

A. An event of force majeure as defined in Article XLVII (Force Majeure), subject to Ecology's reservation in Paragraph 147.

B. A delay caused by another Party's failure to meet any requirement of this Agreement;

C. A delay caused by the invocation of Dispute Resolution to the extent provided by paragraph 30(F) and paragraph 59(I) or judicial order.

D. A delay caused, or which is likely to be caused, by the grant of an extension in regard to another timetable and deadline or schedule; and

E. Any other event or series of events mutually agreed to by the Parties as constituting good cause.

121. Absent agreement of the lead regulatory agency with respect to the existence of good cause, DOE may seek and obtain a determination through the Dispute Resolution process that good cause exists.

122. Reserved

123. If there is consensus among the DOE and lead regulatory agency(s) that the requested extension is warranted, DOE shall extend the affected timetable and deadline or schedule accordingly. If there is no consensus among the DOE and the lead regulatory agency(s) as to whether all or part of the requested extension is warranted, the timetable and deadline or schedule shall not be modified except in accordance with the determination resulting from the Dispute Resolution process.

124. Within seven (7) days of receipt of one or more statements of nonconcurrence with the requested extension, or such other time period as agreed to by the DOE and the lead regulatory agency(s) in writing, DOE may invoke the Dispute Resolution process.

125. A timely and good faith request for an extension, in accordance with the procedures of Section 12.0 of the Action Plan, shall toll any assessment of stipulated penalties pursuant to Article XX (Stipulated Penalties) or any application for judicial enforcement of the affected timetable and deadline or schedule until a decision is reached on whether the requested extension will be approved. If Dispute Resolution is invoked and the requested extension is denied, stipulated penalties pursuant to Article XX (Stipulated Penalties) may be assessed and may accrue from the date of the original timetable, deadline or schedule. Following the grant of an extension, an assessment of stipulated penalties pursuant to Article XX (Stipulated Penalties) or an application for judicial enforcement may be sought only to compel compliance with the timetable and deadline or schedule as most recently modified.

ARTICLE XLI. CONVEYANCE OF TITLE

126. No conveyance of title, easement or other interest in the Hanford Site on which any containment system, treatment system, monitoring system or other response action(s) is installed or implemented pursuant to this Agreement shall be consummated by DOE without provision for continued maintenance of any such system or other response action(s). At least thirty (30) days prior to any conveyance, DOE shall notify EPA and Ecology of the provisions made for the continued operation and maintenance of any response action(s) or system installed or implemented pursuant to this Agreement.

ARTICLE XLII. PUBLIC PARTICIPATION

127. The Parties agree that this Agreement and any subsequent proposed remedial action alternative(s) and subsequent plan(s) for remedial or corrective action or permitting/closure action at the Hanford Site arising out of this Agreement shall comply with the administrative record and, public participation requirements of CERCLA, including CERCLA Secs. 117 and 113(k), the NCP, and EPA guidance on public participation and administrative records, or the public participation requirements of RCRA and Ch. 70.105 RCW.

128. DOE shall develop and implement a Community Relations Plan (CRP) which responds to the need for an interactive relationship with all interested community elements, both on and off Hanford, regarding activities and elements of work undertaken by DOE under this Agreement. DOE agrees to develop and implement the CRP in a manner consistent with CERCLA Sec. 117, the NCP, EPA guidelines set forth in EPA's Community Relations Handbook, and any modifications thereto, and the public participation requirements of RCRA and Ch. 70.105 RCW. The CRP is subject to the review and approval by EPA and Ecology under Article XV (Review of Documents).

129. The public participation requirements of this Agreement shall be implemented so as to meet the public participation requirements applicable to RCRA permits under 40 CFR Part 124 and RCRA Sec. 7004.

ARTICLE XLIII. DURATION/TERMINATION

130. Upon satisfactory completion of the remedial or corrective action phase as described in Section 7 of the Action Plan for a given Operable Unit, the lead regulatory agency shall issue a Notice of Completion to DOE for that Operable Unit. At the discretion of the lead regulatory agency, a Notice of Completion may be issued for completion of a portion of the remedial or corrective action for an Operable Unit.

131. This Agreement shall terminate when DOE has satisfactorily completed all work pursuant to this Agreement and the Action Plan or when the Parties unanimously agree to termination.

132. The Parties agree that due to the long-term commitments contained in this Agreement, this Agreement will be reviewed by the Parties five (5) years from the date of execution of this Agreement, and at the conclusion of every five (5) year period thereafter. The purpose of this review will be to determine (1) whether there has been substantial compliance with the terms of the Agreement and, (2) the need to modify the Agreement. This review will be made by a committee composed of representatives from each Party. Modifications to the Agreement will be made in accordance with Section 12.0 of the Action Plan. If the Parties do not unanimously agree that there has been substantial compliance with the terms of the Agreement, EPA and Ecology reserve the right to withdraw from the Agreement; provided, however, that all Parties shall comply with all provisions of this Agreement from the effective date of the Agreement to the date of the withdrawal. Further provided, however, that no Party may base its withdrawal from this Agreement on its own substantial noncompliance with this Agreement. Regardless of any Party's withdrawal under this paragraph, all parties shall comply with all provisions of this Agreement as they relate to operable units where a remedial investigation or RCRA facility investigation workplan has already been approved, unless the Parties agree otherwise. Any Party withdrawing from this Agreement shall notify the other Parties in writing.

ARTICLE XLIV. <u>SEVERABILITY</u>

133. If any provision of this Agreement is ruled invalid, illegal or unconstitutional, the remainder of the Agreement shall not be affected by such ruling.

ARTICLE XLV. CLASSIFIED AND CONFIDENTIAL INFORMATION

134. Notwithstanding any provision of this Agreement, all requirements of the Atomic Energy Act of 1954, as amended, and all Executive Orders concerning the handling of unclassified controlled nuclear information, restricted data and national security information, including "need to know" requirements, shall be applicable to any access to information or facilities covered under the provisions of this Agreement. EPA and Ecology reserve their right to seek to otherwise obtain access to such information or facilities when it is denied, in accordance with applicable law.

135. Any Party may assert on its own behalf or on behalf of a contractor, subcontractor or consultant, a business confidentiality claim or privilege covering all or any part of the information requested by this Agreement, pursuant to 42 U.S.C. Sec. 9604 and state law. Analytical data shall not be claimed as business confidential. Parties are not required to provide legally privileged information. At the time any information is furnished which is claimed to be business confidential, all Parties shall afford it the maximum protection allowed by law. If no claim of business confidentiality accompanies the information, it may be made available to the public without further notice.

ARTICLE XLVI. RESERVATION OF RIGHTS

136. The Parties have determined that the activities to be performed under this Agreement are in the public interest. EPA and Ecology agree that compliance with this Agreement shall stand in lieu of any administrative and judicial remedies against DOE and its contractors, which are available to EPA and Ecology regarding the currently known release or threatened release of hazardous substances, hazardous wastes, pollutants or

contaminants at the Hanford Site which are the subject of the activities being performed by DOE under Articles VII (Work) and XIV (Work). Provided, that nothing in this Agreement, 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 under the following circumstances:

A. 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.

B. Any discharge or release of hazardous waste which the Parties choose not to address under this Agreement.

C. Upon discovery of new information regarding hazardous substances or hazardous waste management, including but not limited to, information regarding releases of hazardous waste or hazardous substances to the environment which the Parties choose not to address under this Agreement.

D. Upon Ecology's or EPA's determination that action beyond the terms of this Agreement is necessary to abate an imminent and substantial endangerment to the public health or welfare or the environment.

137. In the event of any action by EPA or Ecology under Paragraph 136 to address matters not covered in this Agreement, DOE reserves all rights and defenses available under law. In the event of any action by EPA or Ecology under Paragraph 136 to address matters covered in this Agreement, DOE reserves all rights and defenses specified in this Agreement.

138. Except as otherwise expressly provided herein, nothing in this Agreement shall constitute or be construed as a bar or release from any claim, cause of action or demand in law or equity by or against any person, firm, partnership or corporation not a signatory to this Agreement for any liability it may have arising out of or relating in any way to this Agreement or the

generation, storage, treatment, handling, transportation, release, or disposal of any hazardous substances, hazardous wastes, hazardous constituents, pollutants, or contaminants found at, taken to, or taken from the Hanford Site.

139. If EPA and Ecology are in dispute concerning any matter addressed in Part Four, and are unable to resolve such dispute after pursuing dispute resolution pursuant to the dispute resolution procedures set forth in Part Four, the releases or actions which are the subject of the dispute shall be deemed matters which are not addressed under this Agreement. Thereafter, EPA, Ecology, and DOE may take any action with regard to such matters which would be appropriate in the absence of this Agreement, and each party reserves its rights to assert and defend its respective legal position in connection with any such actions.

140. EPA and Ecology shall not be held as a Party to any contract entered into by DOE to implement the requirements of this Agreement.

141. For matters within the scope of this Agreement, Ecology, and EPA reserve the right to bring any enforcement action against DOE's contractors, subcontractors and/or operators, if DOE fails to comply with this Agreement. For matters outside the scope of this Agreement, Ecology and EPA reserve the right to bring any enforcement action against DOE's contractors, subcontractors and/or operators, regardless of DOE's compliance with this Agreement.

142. This Agreement shall not be construed to limit in any way the right provided by law to the public or any citizen to obtain information about the work to be performed under this Agreement or to sue or intervene in any action to enforce state or federal law.

143. Except as provided herein, DOE is not released from any liability which it may have pursuant to any provisions of state and federal

law, including any claim for damages for liability to destruction of, or loss of natural resources.

144. This Agreement shall not restrict EPA and/or Ecology from taking any legal or response action for any matter not specifically part of the work covered by this Agreement.

ARTICLE XLVII. FORCE MAJEURE

145. A Force Majeure shall mean any event arising from causes beyond the control of a Party that causes a delay in or prevents the performance of any obligation under this Agreement, including, but not limited to:

A. acts of God, fire, war, insurrection, civil disturbance, or explosion;

B. unanticipated breakage or accident to machinery, equipment or lines of pipe despite reasonably diligent maintenance;

C. adverse weather conditions that could not be reasonably anticipated, or unusual delay in transportation;

D. restraint by court order or order of public authority;

E. inability to obtain, at reasonable cost and after exercise of reasonable diligence, any necessary authorizations, approvals, permits or licenses due to action or inaction of any governmental agency or authority other than DOE;

F. delays caused by compliance with applicable statutes or regulations governing contracting, procurement or acquisition procedures, despite the exercise of reasonable diligence; and

G. insufficient availability of appropriated funds, if DOE shall have made timely request for such funds as part of the budgetary process as set forth in Article XLVIII (Cost, Schedule, Scope, Integration, Planning and Reporting) of this Agreement.

146. A Force Majeure shall also include any strike or other labor dispute, whether or not within the control of the Parties affected thereby. Force Majeure shall not include increased cost or expenses of response actions, whether or not anticipated at the time such response actions were initiated.

147. DOE and Ecology agree that Subparagraph B (entirely), Subparagraph C ("delay in transportation"), Subparagraph D ("order of public authority"), Subparagraph E ("at reasonable cost"), and Subparagraph G (entirely), of Paragraph 145 do not create any presumptions that such events arise from causes beyond the control of a Party. Ecology specifically reserves the right to withhold its concurrence to any extensions which are based on such events pursuant to the terms of Article XL, or to contend that such events do not constitute Force Majeure in any action to enforce this Agreement.

ARTICLE XLVIII. COST, SCHEDULE, SCOPE, INTEGRATION, PLANNING AND REPORTING

148. DOE shall take all necessary steps to integrate Hanford programs and to obtain timely funding in order to fully meet its obligations under this Agreement. This shall be accomplished in the following manner:

A. In its annual budget request, DOE shall include estimated funding levels required to achieve full compliance with this Agreement.

B. In the process of formulating its annual budget request, DOE may be subject to target funding guidance directed by the OMB. When DOE's target budget case differs from its full compliance funding case, the Parties agree to attempt to reach agreement regarding workscope, priorities, schedules/milestones, and Activity Data Sheet (ADS) funding levels required to accomplish the purpose of the Agreement, provided satisfactory progress has been made in controlling costs in accordance with the cost efficiency

initiatives. These discussions shall be conducted before DOE-RL submits its annual budget request and supporting ADSs to DOE Headquarters (DOE-HQ) under signature of the DOE-RL manager.

C. DOE-RL will submit its budget request with detailed ADSs, identifying both target and compliance funding levels, to DOE-HQ and identify any unresolved issues raised by Ecology and EPA. If these issues are not subsequently resolved prior to DOE's submission of its budget request to OMB, DOE-HQ will also identify these issues and the funding required for compliance to OMB.

D. In determining the workscope, priorities, and schedules, the Parties shall consider the values expressed by the Hanford stakeholders.

E. The Parties recognize that successful implementation of this Agreement is dependent upon the prudent use of resources, and that resource requirements and constraints should be considered during the work planning, budget formulation, and budget execution process. To ensure the development of responsible budget requests, consistent with the requirements of this Agreement and applicable federal/state statutes, the Parties will work cooperatively and in good faith.

149. The purpose of this paragraph is to establish a mechanism that will help assure adequate progress toward meeting the requirements of this Agreement. It provides for communication and consultation on work scope, priorities, schedules/milestones, and cost/funding matters. It further provides a means for performance measurement and for early identification of problems which could jeopardize compliance with the schedules and milestones of the Agreement.

A. Within two weeks after DOE Headquarters (DOE-HQ) issuance of Environmental Management planning and/or budget guidance, including target level funding guidance, to the Richland Operations Office (DOE-RL), DOE-RL

shall provide a copy of it to Ecology and EPA along with a preliminary assessment of its impacts. DOE-RL shall also provide a copy of its initial contractor budget guidance to Ecology and EPA within two weeks after issuance.

B. EPA and Ecology agree not to release confidential budget information to any other entities prior to submission by the President of his budget request to Congress, unless authorized by DOE or required to do so by court order. DOE shall seek to intervene in any proceeding brought to compel or enjoin the release of this information. If allowed to intervene, DOE shall assert its interest in, and the legal basis for, maintaining the confidentiality of this information.

C. As soon as possible after DOE-HQ issuance of its initial planning guidance but no later than two weeks prior to DOE-RL's submission of its budget request and supporting Activity Data Sheets to DOE-HQ, Ecology and EPA shall be given: 1) a management level briefing at the ADS level on the budget, including an integrated sitewide assessment of impacts on the requirements of this Agreement; and 2) the opportunity to review, comment and make integrated recommendations on that budget request, including workscope, priorities, schedules/milestones, and five year target and compliance cost/funding projections. DOE-RL shall, to the extent it deems appropriate, revise its budget request and ADSs, including workscope, to address or resolve Ecology and EPA comments prior to transmittal to DOE-HQ. DOE-RL shall notify DOE-HQ in its budget request of any comments not fully resolved to the satisfaction of all Parties, and shall identify full compliance funding levels.

D. Within 30 days after the President's submission of the budget to Congress, DOE-RL shall brief Ecology and EPA on the President's budget request at the ADS level detail. At this briefing, DOE-RL shall notify Ecology and EPA of any differences between the target and compliance case workscope and

cost/funding levels submitted in accordance with subparagraph C. above, and the actual workscope and funding levels included in the President's budget request to Congress. DOE-RL shall also provide Ecology and EPA its assessment of the impacts such differences may have on DOE's ability to meet milestones or satisfy other requirements of this Agreement.

E. DOE shall notify and discuss with Ecology and EPA, prior to transmittal to OMB, any budget amendment, supplemental appropriation request or reprogramming request and any corresponding impacts upon the workscope, and schedules, and DOE's ability to meet milestones or other requirements of this Agreement with and without the amendment, supplemental appropriation or reprogramming request.

F. Within 30 days after congressional budget appropriation, DOE-RL shall brief Ecology and EPA on the budget appropriation and subsequent funding allocations for the new fiscal year at ADS level detail. If there is a delay in congressional appropriation after the start of the fiscal year, DOE-RL shall inform Ecology and EPA of any congressional continuing resolution action, and the potential impacts, if any, on progress to achieve milestones and other requirements of the Agreement. Ecology and EPA will be given timely opportunity to review and comment on these budget appropriation and funding allocation actions, and to make recommendations for reallocation of available funds.

G. If the congressional budget appropriation differs from the funding levels required to comply with any milestones or other requirements of the Agreement, DOE-RL shall take whatever action is appropriate under the Agreement. Such action may include submitting a change request in accordance with the Action Plan, Section 12.0 entitled Changes to the Agreement. The Parties shall attempt to reach agreement on adjustments in workscope or milestones consistent with the congressional appropriation which will minimize

impacts on the requirements of this Agreement. If agreement cannot be reached, Ecology and EPA reserve the right to take appropriate action as provided for in this Agreement.

H. Ecology, DOE, and EPA Executive Managers shall meet periodically throughout the budget execution year to discuss the status of projects to be funded for the current fiscal year, the integration of programs, and events that have affected, or may affect milestones or activity within such milestones.

I. In order to ensure continuing, effective and timely interface between DOE, Ecology and EPA regarding work scope planning/scheduling, program integration, budget/funding, current year performance status, milestone tracking, and notification of problem areas, DOE shall, unless otherwise agreed to, provide the following, or their equivalent, to EPA and Ecology:

1. Annual Multi-Year Program Plans, including ADS level funding projections, as soon as possible after their development;

2. Annual Fiscal Year Work Plans, including ADS level funding profiles, as soon as possible after start of each fiscal year;

3. The monthly Approved Funding Plan (AFP), at ADS level detail, within two weeks following the start of each month;

4. Monthly Site Management System (SMS) reports shall be provided to EPA and Ecology to identify: any anticipated delays in meeting time schedules, the reason(s) for such delay and actions taken to prevent or mitigate the delay, and any potential problems that may result in a departure from the requirements and time schedules. In accomplishing this, the SMS reports shall, as a minimum, include for each program: monthly and cumulative budget, actual monthly and cumulative costs, performance measurement information including explanations of cost/schedule variances, progress in achievement of milestones, and notification of problems and program/project

delays. The appropriate contractor program managers shall sign the monthly SMS report. The signature block shall contain the statement: "The information contained within this report is complete and accurate to the best of my knowledge." At the monthly milestone review meetings, the appropriate DOE project managers will provide DOE's assessment of milestone progress and the extent to which DOE agrees or disagrees with the preceding month's SMS report. The assessment will be documented in meeting minutes signed by DOE and the lead regulatory agency. With regard to these assessments, signature of the minutes by Ecology and EPA shall indicate only that the assessment information was provided by DOE. The monthly SMS report shall also be placed in the Public Information Repositories as identified in Section 10.2 of the Action Plan.

5. Upon request, EPA and Ecology shall be provided access to available information below the ADS level of detail.

J. During the budget execution year, DOE-RL shall notify Ecology and EPA of any proposed action to internally reallocate funding at ADS levels, if such an action significantly affects workscope and schedules.

K. Within 30 days following the completion of DOE's annual midyear management review (approximately April-May of each year), DOE-RL shall brief Ecology and EPA on any decisions that significantly affect milestones under this Agreement.

L. As soon as possible following the end of each federal fiscal year, DOE-RL shall provide to EPA and Ecology the fiscal year-end SMS report, and a summary briefing on the amount of funds that have been obligated and spent during the fiscal year ended and the work that has been performed. This summary shall include, at ADS level detail, actual versus planned expenditures for the fiscal year end; a summary of carryover amounts including those available for expenditures in the following budget execution year; and

summaries/information explaining the extent of work planned versus work completed or performed during the year.

M. The three parties agree to inform and involve the public and stakeholders at key stages of integrated (cross programmatic) decision making, and at key stages of budget formulation and execution consistent with the Interim Report of the Federal Facilities Environmental Restoration Dialogue Committee. The process for informing and involving the public and stakeholders will be developed and included in the Agreement CRP.

N. The participation by Ecology and EPA in DOE's planning and budget formulation and execution process shall not affect DOE's authority over its budgets and funding level submission.

150. In accordance with Section 120(e)(5)(B) of CERCLA, 42 U.S.C. Sec. 9620(e)(5)(B), DOE shall include in its annual report to Congress the specific cost estimates and budgetary proposals associated with the implementation of this Agreement.

151. If appropriated funds are not available to fulfill DOE's obligations under this Agreement, EPA and Ecology reserve the right to initiate any other action which would be appropriate absent this Agreement.

152. EPA and DOE agree that any requirement for the payment or obligation of funds, including stipulated penalties under Article XX (Stipulated Penalties) of this Agreement, by DOE established by the terms of this Agreement shall be subject to the availability of appropriated funds, and no provision herein shall be interpreted to require obligation or payment of funds in violation of the Anti-Deficiency Act, 31 U.S.C. Sec. 1341. In cases where payment or obligation of funds would constitute a violation of the Anti-Deficiency Act, the dates established requiring the payment or obligation of such funds shall be appropriately adjusted.

153. If appropriated funds are not available to fulfill DOE's

obligations under this Agreement, the Parties shall attempt to agree upon appropriate adjustments to the workscope or milestones which require the payment or obligation of such funds. If no agreement can be reached then Ecology and DOE agree that in any action by Ecology to enforce any provision of this Agreement, DOE may raise as a defense that its failure or delay was caused by the unavailability of appropriated funds. Ecology disagrees that lack of appropriations or funding is a valid defense. However, DOE and Ecology agree and stipulate that it is premature at this time to raise and adjudicate the existence of such a defense. Acceptance of this Paragraph 153 does not constitute a waiver by DOE that its obligations under this Agreement are subject to the provisions of the Anti-Deficiency Act, 31 U.S.C. Sec. 1341.

ARTICLE XLIX. <u>INCLUSION OF NONREGULATED NUCLEAR MATERIALS</u>

154. The Parties recognize that with the close of the cold war the DOE is reassessing current management practices to ensure sound management and compliance with applicable requirements of a wide range of nuclear materials and chemicals nationwide. Many of these materials in inventory, such as surplus nuclear materials, may no longer be needed for their original purposes and have no clearly identified future use. This recognition, coupled with the Parties recognition that effective management of all Hanford cleanup and waste management activities demands a fully coordinated approach (See Agreement milestone M-33-00), has resulted in agreement to include management of nuclear materials that are not currently regulated under RCRA or CERCLA (nonregulated nuclear materials) within this Agreement.

155. Target dates pertaining to nonregulated nuclear materials are identified within this Agreement by the prefix "MX", e.g., MX-00-00T. Inclusion and management of such nonregulated nuclear materials shall be pursuant to Section 12 of the Action Plan. The Parties recognize and agree

that inclusion in this Agreement of target dates pertaining to management of nonregulated nuclear materials confers no regulatory authority over these materials to Ecology or EPA. The Parties recognize and agree however, that work schedules associated with non regulated nuclear materials may impact DOEs' ability to comply with the requirements of this Agreement. DOE agrees that delays in nonregulated nuclear material(s) projects will not excuse or constitute a defense with regard to any failure to comply with regulated Agreement activities (e.g., milestones).

ARTICLE L. COMPLIANCE WITH APPLICABLE LAWS

156. All actions required to be taken pursuant to this Agreement shall be taken in accordance with the requirements of all applicable federal and state laws and regulations. All Parties acknowledge that such compliance may impact schedules to be performed under this Agreement. Extensions of schedules shall be granted for good cause as provided in Article XL and in accordance with the procedures specified in Section 12.0 of the Action Plan.

157. In any judicial challenge arising under this Agreement the court shall apply the law in effect at the time of the challenge, including any amendments to RCRA or CERCLA enacted after entry of this agreement. Where the law governing this agreement has been amended or clarified, any provision of this agreement which is inconsistent with such amendment or clarification shall be modified to conform to such change or clarification.

ARTICLE LI. EFFECTIVE DATE

158. This Agreement is effective upon signature by all Parties.

ARTICLE LII. ATTACHMENT 1

Attachment 1 to this Agreement is a letter dated February 26, 1989, from

Donald Carr, Acting Assistant Attorney General, Land and Natural Resources Division, U.S. Department of Justice, to Christine Gregoire, Director, Department of Ecology. This letter sets forth the Department of Justice's position on the enforceability of this Agreement.

IT IS SO AGREED:

Each undersigned representative of a Party certifies that he or she is fully authorized to enter into this Agreement and to legally bind such Party to this Agreement.[1]

THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY:

THE UNITED STATES DEPARTMENT OF ENERGY:

THE WASHINGTON STATE DEPARTMENT OF ECOLOGY

---

[1]The Hanford Federal Facility Agreement and Consent Order signed May 15, 1989, was originally executed by: Robie G. Russel, Regional Administrator, Region 10, for the U.S. Environmental Protection Agency; Michael J. Lawrence, Manager, Richland Operations Office, for the U.S. Department of Energy; and, Christine O. Gregoire, Director, for the Washington State Department of Ecology.

The first amendment to the Agreement was signed in August 1990, by: Thomas P. Dunne, Acting Regional Administrator, Region 10, for the U.S. Environmental Protection Agency; Edward S. Goldberg, Acting for John D. Wagoner, Manager, Richland Operations Office, for the U.S. Department of Energy; and, Christine O. Gregoire, Director, for the Washington State Department of Ecology.

The second amendment to the Agreement was signed in September 1991, by: Dana A. Rasmussen, Regional Administrator, Region 10, for the U.S. Environmental Protection Agency; John D. Wagoner, Manager, Richland Operations Office, for the U.S. Department of Energy; and Christine O. Gregoire, Director, for the Washington State Department of Ecology.

The third amendment to the Agreement was signed in August 1992, by: Dana A. Rasmussen, Regional Administrator, Region 10, for the U.S. Environmental Protection Agency; John D. Wagoner, Manager, Richland Operations Office, for the U.S. Department of Energy; and Chuck Clarke, Director, for the Washington State Department of Ecology.

The fourth amendment to the Agreement was signed in January 1994, by: Gerald Emison, Acting Regional Administrator, Region 10, for the U.S. Environmental Protection Agency; John D. Wagoner, Manager, Richland Operations Office, for the U.S. Department of Energy; and Mary Riveland, Director, for the Washington State Department of Ecology.

The fifth amendment to the Agreement was signed in July 1995, by: Charles Findley acting for Charles Clarke Regional Administrator, Region 10, for the U.S. Environmental Protection Agency; Ronald Izatt acting for John Wagoner, Manager, Richland Operations Office, for the U.S. Department of Energy; and Terry Husseman acting for Mary Riveland, Director, for the Washington State Department of Ecology.

The sixth amendment to the Agreement was signed in February 1996, by: Charles Clarke, Regional Administrator, Region 10, for the U.S. Environmental Protection Agency; John Wagoner, Manager, Richland Operations office, for the U.S. Department of Energy; and Mary Riveland, Director, for the Washington State Department of Ecology.

U.S. Department of Justice
Land and Natural Resources Division

ATTACHMENT 1

Office of the Assistant Attorney General
Washington, D.C. 20530

February 26, 1989

Ms. Christine Gregoire
Director, Washington State
Department of Ecology
MSPV-11
Olympia, Washington 98504

Dear Ms. Gregoire:

You have asked the Department of Justice to review certain provisions of the proposed agreement between the U.S. Department of Energy, U.S. Environmental Protection Agency, and the Washington State Department of Ecology with regard to the Hanford facility. We agree that DOE and EPA have the authority to enter into this agreement, and that the agreement is binding and enforceable, in accordance with Article I, paragraph 10 of Article II, Article IV, Article IX, Article XX, and Article XXVII of the agreement, by the State of Washington and any affected citizens. The CERCLA provisions of this agreement are enforceable pursuant to section 310 of CERCLA. The RCRA provisions of this agreement are enforceable pursuant to section 7002 of RCRA.

As with consent decrees, which establish a process for remedy selection but do not resolve all cleanup issues, the Hanford agreement establishes a process to address future cleanup issues. Also just like consent decrees, the Hanford agreement contains a dispute resolution mechanism as well as procedures for seeking judicial review of conflicts which may arise concerning future decisions.

Accordingly, we believe that resolution of remediation and compliance problems at Hanford through such an agreement should be encouraged. In fact, we believe that the agreement is a superior vehicle for resolving DOE's cleanup and compliance obligations and therefore should be favored over more time-consuming litigation. The agreement has the advantage of being enforceable by any "person", whereas a consent decree is generally enforceable only by the parties to the litigation. Furthermore, the agreement allows for a more comprehensive resolution than a consent decree, since the latter must be very

narrowly tailored to meet concerns over jurisdiction and precedent. Therefore, we support your efforts to resolve environmental concerns at Hanford through the use of such this agreement.

Recognizing the concerns that the state has raised with respect to the enforceability of this proposed agreement, I understand that this letter will be attached to the Hanford agreement.

Sincerely yours,

Donald Carr

Donald A. Carr
Acting Assistant Attorney General
Land and Natural Resources Division

c: R. Russell
M. Lawrence

Document current as of April 24, 2003

ATTACHMENT 2

ACTION PLAN

FOR IMPLEMENTATION OF THE

HANFORD CONSENT ORDER AND COMPLIANCE AGREEMENT

BETWEEN

THE U.S. ENVIRONMENTAL PROTECTION AGENCY,

THE U.S. DEPARTMENT OF ENERGY,

AND

THE STATE OF WASHINGTON DEPARTMENT OF ECOLOGY

CONTENTS

EXECUTIVE SUMMARY 1

1.0 INTRODUCTION 1-1
1.1 Purpose 1-1
1.2 Regulatory Authorities 1-1
1.3 Organization of Action Plan 1-2

2.0 MILESTONES 2-1
2.1 Introduction 2-1
2.2 Disposal of Tank Wastes 2-1
2.3 Cleanup of Past-Practice Units 2-1
2.4 RCRA and HWMA Operating Requirements 2-2

3.0 UNIT IDENTIFICATION, CLASSIFICATION, AND PRIORITIZATION 3-1
3.1 Introduction 3-1
3.2 Treatment, Storage, and Disposal Units 3-2
3.3 Past-Practice Units 3-2
3.4 Prioritization 3-3
3.5 Waste Information Data System and Hanford Site Waste Management Units Report 3-5

4.0 AGREEMENT MANAGEMENT 4-1
4.1 Project Manager Role 4-1
4.2 Interagency Management Integration Team 4-2
4.3 Senior Executive Committee 4-3

5.0 INTERFACE OF REGULATORY AUTHORITIES 5-1
5.1 Regulatory Programs 5-1
5.2 Categories of Waste Units 5-1
5.3 Management of Treatment, Storage, and Disposal Units 5-2
5.4 Management of Past-Practice Units 5-3
5.5 Treatment, Storage, and Disposal Units and Past-Practice Units Interface 5-4
5.6 Lead Regulatory Agency Concept 5-5
5.7 Integration with the National Environmental Policy Act (NEPA) 5-6

6.0 TREATMENT, STORAGE, AND DISPOSAL UNIT PROCESS 6-1
6.1 Introduction 6-1
6.2 Treatment, Storage, and Disposal Permitting Process 6-2
6.3 Treatment, Storage, and Disposal Closure Process 6-5
6.4 Response to Imminent and Substantial Endangerment Cases 6-8
6.5 Quality Assurance 6-8

7.0 PAST PRACTICES PROCESSES 7-1
7.1 Introduction 7-1
7.2 Preliminary Processes 7-4
7.3 Comprehensive Environmental Response, Compensation,

and Liability Act Past-Practice Unit Process 7-6

CONTENTS (continued)

7.4 Resource Conservation and Recovery Act Past-Practice Unit Process 7-15
7.5 Cleanup Requirements 7-18
7.6 Natural Resource Trusteeships 7-21
7.7 Health Assessments 7-22
7.8 Quality Assurance 7-23

8.0 FACILITY DECOMMISSIONING PROCESS 8-1
8.1 Introduction 8-1
8.2 Facility Operations 8-5
8.3 Decommissioning Process Planning 8-5
8.4 General Decommissioning Process 8-7
8.5 Transition Phase 8-8
8.6 Surveillance and Maintenance Phase 8-12
8.7 Disposition Phase 8-12
8.8 Preclosure Work Plan and RCRA Closure Plan 8-17

9.0 DOCUMENTATION AND RECORDS 9-1
9.1 Categorization of Documents 9-1
9.2 Document Review and Comment Process 9-1
9.3 Document Revisions 9-7
9.4 Administrative Record 9-9
9.5 Distribution of Documents and Correspondence 9-14
9.6 Data Access and Delivery Requirements 9-14

10.0 COMMUNITY RELATIONS/PUBLIC INVOLVEMENT 10-1
10.1 Introduction 10-1
10.2 Public Information Repositories 10-1
10.3 Mailing Lists and Newsletter 10-2
10.4 Press Releases 10-2
10.5 Public Meetings 10-2
10.6 Public Comment Opportunities 10-3
10.7 Public Hearing Opportunities 10-5
10.8 Technical Assistance Grants 10-5
10.9 Washington State Public Participation Grants 10-6
10.10 Indian Tribes 10-6
10.11 Citizen Suit Provisions 10-7

11.0 WORK SCHEDULE, WORK PLANS, AND ASSOCIATED REPORTS 11-1
11.1 Introduction 11-1
11.2 Work Schedule 11-1
11.3 Work Schedule Updates 11-2
11.4 DOE Baseline Change Control Documentation, Multi Year Work Plans and Systems Engineering Control Documents 11-2
11.5 Waste/Material Stream Project Management (Work) Plans Prepared Under Agreement Milestone Series M-90-00, M-91-00, and M-92-00 11-2
11.6 Other Work Plans and Supporting Schedules 11-4
11.7 Supporting Technical Plans and Procedures 11-5
11.8 Tank Waste Remediation System Critical Path Process 11-6

CONTENTS (continued)

12.0 CHANGES TO THE AGREEMENT 12-1
12.1 Introduction 12-1
12.2 Authority to Approve Changes 12-1
12.3 Formal Change Control Process 12-1
12.4 Minor Field Changes 12-4

13.0 LIQUID EFFLUENT TREATMENT AND DISPOSAL 13-1
13.1 Liquid Effluent Discharge Restrictions 13-1

14.0 SIGNATURE 14-1

CONTENTS (continued)

APPENDIXES

A.	Definition of Terms and Acronyms	A-1
B.	Listing of Treatment, Storage, and Disposal Groups/Units	B-1
C.	Prioritized Listing of Operable Units and Designation of Lead Regulatory Agency	C-1
D.	Work Schedule and Designation of Lead Regulatory Agency	D-1
E.	Key Individuals	E-1
F.	Supporting Technical Plans and Procedures	F-1
G.	Data Management Initiatives	G-1
H.	Single Shell Tank Waste Retrieval Criteria Procedure	H-1

LIST OF FIGURES

6-1 Permitting Process Flowchart 6-4

6-2 Closure Process Flowchart 6-6

7-1 Aggregate Areas 7-2

7-2 Comparison of Resource Conservation and Recovery Act Corrective Measure and Comprehensive Environmental Response, Compensation, and Liability Act Remedial Action Processes 7-3

7-3 Overview of the Remedial Investigation/Feasibility Study Process 7-8

7-4 Remedial Investigation/Feasibility Study (Resource Conservation and Recovery Act Facility Investigation/Corrective Measures Study) Work Plan Review and Approval 7-10

7-5 Overview of the Resource Conservation and Recovery Act Facility Investigation/Corrective Measures Study Process 7-16

8-1 Predecommissioning Planning 8-6

8-2 Typical Decommissioning Process 8-7

8-3 Transition Phase Breakdown 8-9

8-4 Surveillance and Maintenance Phase Breakdown 8-13

8-5 Disposition Phase Breakdown 8-15

9-1 Review and Comment on Primary Documents 9-4

9-2 Part B Permit Application and Closure/Postclosure Plan Process Flowchart 9-6

9-3 Review and Comment on Secondary Documents 9-8

12-1 Change Control Sheet 12-2

H-1 Process for Assessing Percentage of Waste Retrieved from Waste Retrieval Operations H-7

LIST OF TABLES

8-1 Decommissioning Process Relationships 8-3

8-2 Preclosure Work Plan and Closure Plan Elements 8-19

9-1 Primary Documents 9-2

9-2 Secondary Documents 9-3

9-3 Administrative Record Documents 9-11

Document current as of April 24, 2003

EXECUTIVE SUMMARY

FOR
HANFORD FEDERAL FACILITY AGREEMENT AND CONSENT ORDER
ACTION PLAN

This Action Plan is an attachment to the Hanford Federal Facility Agreement and Consent Order (hereafter referred to as the "Agreement") between the U.S. Department of Energy (DOE), U.S. Environmental Protection Agency (EPA), and the State of Washington Department of Ecology (Ecology). The Agreement is the legal document that binds DOE to actions to comply with the Resource Conservation and Recovery Act (RCRA), the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), and the State of Washington Hazardous Waste Management Act (HWMA).

THE HANFORD SITE

The Hanford Site was acquired by the Federal Government in 1943 for the construction and operation of facilities to produce plutonium for World War II. The site encompasses approximately 560 square miles within the Columbia River Basin. For over 20 years, Hanford facilities were primarily dedicated to the continuation of plutonium production for national defense and managing the wastes generated. In later years, programs at Hanford have become increasingly diverse, involving research and development for advanced reactors and renewable energy technologies. Currently DOE plans to phase out the defense production missions of Hanford, with the new emphasis of the Site being research and development, cleanup of waste units resulting from past operations, and achieving compliance with Federal and State laws.

Treatment, Storage and Disposal Operations

The Hanford Site has and will continue to provide for the Treatment, Storage and Disposal of hazardous and mixed wastes. Mixed wastes are those which contain both hazardous waste (i.e. chemical) and radioactive waste. In 1984, Congress amended RCRA, imposing, among other things, additional restrictions on hazardous waste storage and disposal activities. The analogous HWMA imposes similar restrictions. These restrictions have been referred to as the Land Disposal Restrictions (LDR). Some of the mixed wastes which are stored at Hanford are subject to LDR and cannot be land disposed until the wastes are treated in accordance with LDR regulations, or a variance is granted. These wastes are stored in underground tanks or in other mixed waste units.

At present, DOE does not have the capability to treat all of the LDR mixed wastes at Hanford in accordance with LDR, and until such treatment occurs, disposal is prohibited. The mixed waste treatment systems which are currently available and treatment systems which are planned for the future must satisfy prescribed LDR treatment requirements. Until treatment systems capable of treating the mixed waste to meet the LDR treatment standards become available for Hanford wastes, storage of existing wastes and wastes which will be generated will continue. However, such storage will be in accordance with an approved plan for the management of LDR mixed waste.

In addition to restrictions on land disposal, these LDR requirements also include specific conditions for storage of LDR wastes. The DOE will submit schedules to develop and construct waste treatment systems necessary to achieve compliance with LDR storage requirements, which shall become effective upon approval by Ecology.

There are over 50 Treatment, Storage or Disposal (TSD) Groups on the Hanford Site which must be permitted and/or closed in accordance with RCRA and the State of Washington HWMA. A group represents one or more TSD units and reflects the level at which a Part B application and/or closure plan will be developed. These units range significantly in complexity from the closure of the single-shell tanks to the permitting of an individual treatment tank within a production facility. Ecology has the primary authority for issuing a final operating permit to the DOE. Until such time, the DOE continues to operate its TSD units under interim status regulations.

Past-Practices

As previously noted, the Hanford Site has been in operation since the mid-1940's. These operations have resulted in approximately 1000 past-practice units that must be investigated and, if necessary, cleaned up. A past-practice unit is a waste management unit where wastes have been disposed (intentionally or unintentionally), and that is not subject to regulation as a TSD Unit.

The majority of the past-practice units on the Hanford Site contain mixed wastes (i.e., wastes containing both radioactive wastes and hazardous wastes). The remaining units contain only radioactive wastes or hazardous wastes, or are considered non-radioactive and non-hazardous. A large percentage of these waste units are either solid waste burial grounds or liquid disposal units, such as cribs, ponds, and ditches.

The groundwater beneath the Hanford Site has been contaminated as a result of these past-practices. Current data show tritium and nitrate to be the most widespread contaminates in the groundwater. Chromium, cyanide, and carbon tetrachloride are some of the hazardous chemicals which have been detected in the groundwater near operating areas.

REGULATORY AUTHORITIES

Resource Conservation and Recovery Act

RCRA was enacted by Congress in 1976. It requires "cradle to grave" management of hazardous waste by all generators, transporters, and owners/operators of treatment, storage, and disposal facilities handling hazardous wastes. A major goal of RCRA is to reduce the generation of hazardous waste.

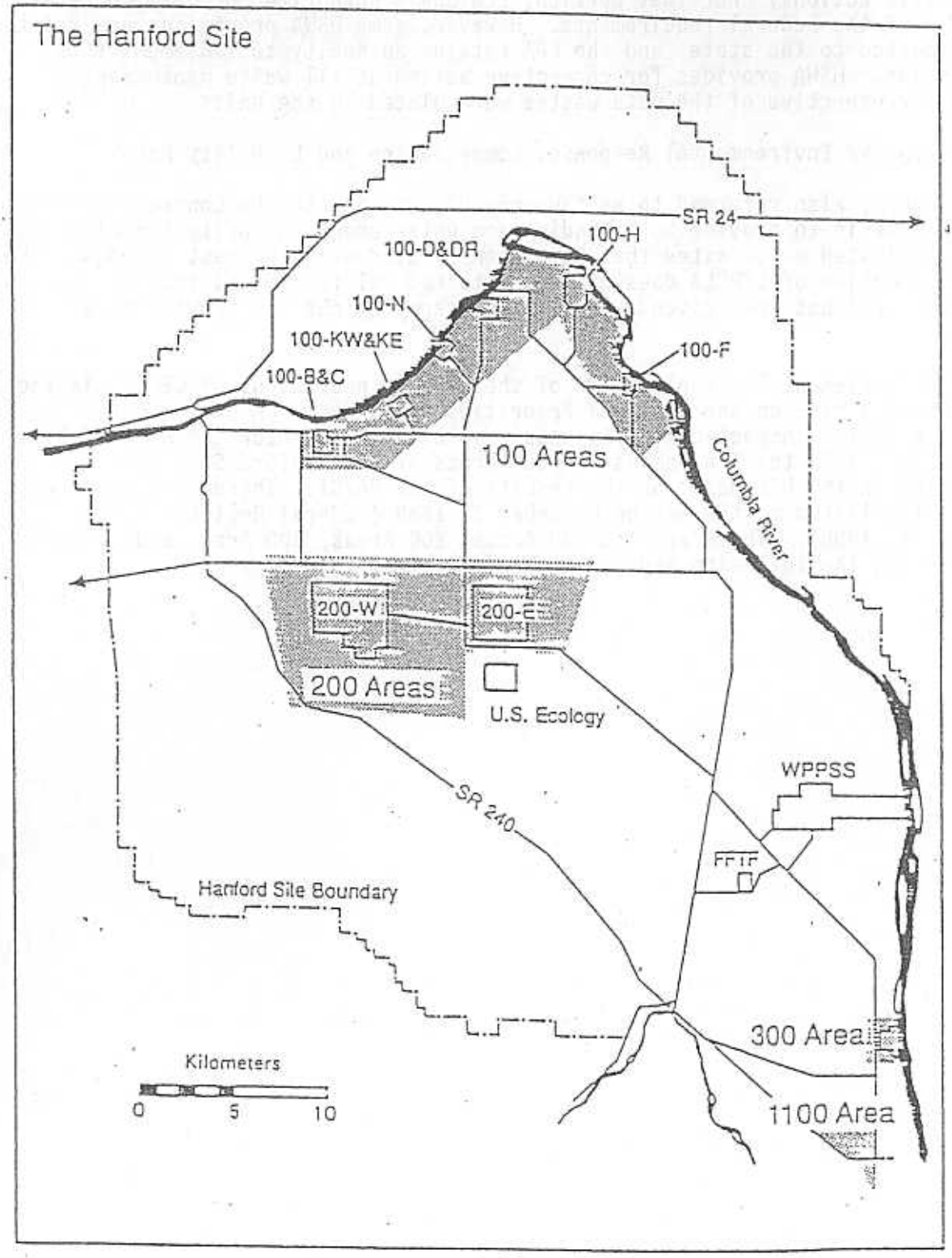
The Department of Ecology has the authority to carry out the RCRA Program in Washington through its own dangerous waste management program. Washington State regulations for dangerous waste management are substantially similar to, but more restrictive in some cases than, the RCRA regulations.

The State of Washington has received authorization to carry out a portion of the Hazardous and Solid Waste Amendments of 1984 (HSWA) including corrective actions. For that portion, Ecology's authorized program operates in lieu of the Federal requirements. However, some HSWA provisions are yet to be delegated to the state, and the EPA retains authority to implement those provisions. HSWA provides for corrective action at all waste management units, irrespective of the date wastes were placed in the units.

Comprehensive Environmental Response, Compensation and Liability Act

CERCLA, also referred to as "Superfund", was enacted by Congress in 1980. Its purpose is to provide both funding and enforcement authority for cleaning up contaminated waste sites that have been created over the past decades. The funding portion of CERCLA does not apply to Federal facilities such as Hanford. EPA has been given authority for carrying out the provisions of CERCLA.

A key element for application of the cleanup provisions of CERCLA is the listing of a site on the National Priorities List (NPL). A Preliminary Assessment/Site Inspection (PA/SI) was completed in 1987 for the Hanford Site. On June 24, 1988 the EPA nominated four areas of the Hanford Site for inclusion on the NPL based on the results of the PA/SI. These four areas were officially listed on the NPL on November 3, 1989 (Federal Register 41015, October 4, 1989). These are the 100 Areas, 200 Areas, 300 Area, and 1100 Area as shown on the following map of the Hanford Site.


The Hanford Site
SR 24
100-H
100-D&DR
100-N
100-KW&KE
100-F
100-B&C
100 Areas
Columbia River
200-W
200-E
200 Areas
U.S. Ecology
WPPSS
SR 240
FFTF
Hanford Site Boundary
300 Area
1100 Area
Kilometers
0
5
10

FEDERAL FACILITY AGREEMENT AND CONSENT ORDER

The Agreement is the legal document covering Hanford Site environmental compliance and cleanup. The general purposes of the Agreement are:

- To ensure that the environmental impacts associated with past and present activities at the Hanford Site are thoroughly investigated and that appropriate response actions are taken as necessary to protect the public health, welfare, and the environment;

- To provide a framework for permitting TSD units and to promote an orderly, effective investigation and cleanup of contamination at the Hanford Site;

- To ensure compliance with RCRA and the Washington Hazardous Waste Management Act for TSD units including requirements covering permitting, interim status, land disposal restrictions, closure, and post-closure care;

- To establish a procedural framework for developing, prioritizing, implementing, and monitoring appropriate response actions at the Hanford Site in accordance with CERCLA, the National Contingency Plan (NCP), Superfund guidance and policy, and RCRA guidance and policy;

- To facilitate cooperation, exchange of information, and the coordinated participation of the parties in such actions; and

- To minimize the duplication of analysis and documentation.

The Legal Agreement contains five parts: Part One contains introductory provisions; Part Two contains provisions governing hazardous waste treatment, storage, and disposal, facility compliance, permitting, closure, and post-closure activities; Part Three contains provisions governing remedial and corrective action activities; Part Four addresses the regulatory interfaces between EPA and the Ecology; and Part Five provides common provisions which apply to both Parts Two and Three. In addition, the Agreement delineates authorities, identifies enforcement provisions and provides for dispute resolution among the parties. This Action Plan is an attachment to the Federal Facility Agreement and Consent Order.

ACTION PLAN

This Action Plan, as an enforceable part of the Agreement, provides the methods and procedures, and establishes the plans for (1) compliance, permitting, and closure under RCRA and the Washington State Hazardous Waste Management Act, and (2) cleanup of the Hanford Site under CERCLA and RCRA corrective action provisions.

Major Milestones

The master plan and schedules for Action Plan work are found in Section 2.0, Milestones. These major milestones contain enforceable commitments for the most significant actions in the Action Plan, including:

- Closure of the Hanford single-shell tanks and final disposal of all tank wastes;
- Investigation and cleanup of all contamination at operable units;
- Permitting and closure of treatment, storage, and disposal units;
- Ceasing disposal of all contaminated liquids to soils; and
- Operation of the High-Level Waste Vitrification Plant.

Unit Identification, Categorization, and Prioritization

The approximately 55 TSD groups on the Hanford Site are identified in Appendix B as those which will continue to operate, and those which are to be closed. Actions associated with these TSD groups have been prioritized on the work schedules based on (1) the risk to public health and environment, (2) benefits received in minimizing wastes in terms of volume and toxicity, and (3) operational considerations.

Approximately 1000 past-practice units are identified in Appendix C. They have been grouped into approximately 74 operable units for the purposes of investigation and cleanup. An operable unit is a grouping of individual waste units based primarily on geographic area and common waste sources. The operable units are prioritized for investigation based on an initial assessment of environmental risk potential. The assessment considers waste volume, hazardous substances and their toxicity or health effects, and the potential for migration of these substances.

Project Managers

EPA, DOE, and Ecology have designated individuals who will serve as project manager who will have the primary responsibility for all activities to be carried out in regard to their assigned operable unit, TSD group/unit or milestone under the Action Plan.

Project managers will conduct monthly meetings concerning their respective areas of responsibility. These meetings will address status and problem areas. The goal is to maximize communication among the three parties.

Integration of RCRA and CERCLA

RCRA and CERCLA overlap in many areas. RCRA and CERCLA both require corrective action for releases regardless of time of release. RCRA regulated wastes are also regulated under CERCLA. Many of the RCRA disposal units on the Hanford Site which are scheduled for closure are located in close

proximity to past-practice units. These TSD units have been incorporated into the appropriate operable unit with the past-practice units so that integrated investigation and cleanup actions result. These TSD units will be closed under the authority of RCRA, generally in coordination with the past-practice activities. In order to streamline the interface between RCRA and CERCLA authorities within an operable unit, the past-practice units contained within an operable unit will all be designated as either RCRA corrective action units or CERCLA units.

Lead Regulatory Agency Concept

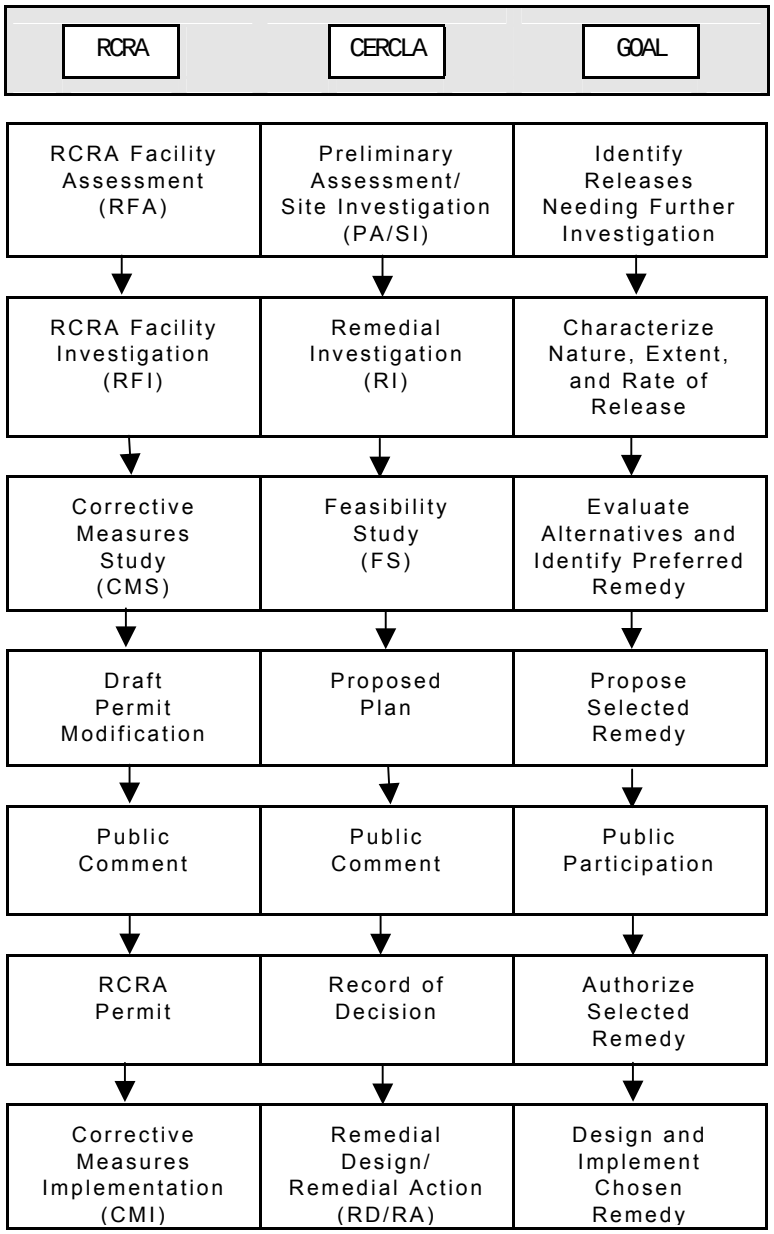
Legal authority for regulatory oversight of DOE's actions may rest with either EPA, Ecology, or a combination of EPA and Ecology. The involvement of both EPA and Ecology throughout completion of a particular milestone, however, is in most cases not an efficient process for regulatory oversight. Therefore, EPA and Ecology will use a "lead regulatory agency" approach to minimize duplication of effort and maximize productivity. In most cases, either EPA or Ecology will be the lead regulatory agency for an operable unit, TSD group/unit or milestone. The non lead regulatory agency will not assign staff to oversee work regarding that operable unit, TSD group/unit or milestone even though it may have legal authority to do so. Staff from the lead regulatory agency will manage all aspects of regulatory oversight, which are covered by this Agreement, on their assigned operable units, TSD groups/units or milestones, including preparation of decision documents and briefings to senior management of the non lead regulatory agency where final approval by the non lead regulatory agency is required. The decision of which agency is lead for each operable unit, TSD group/unit or milestone will be jointly made by EPA and Ecology.

RCRA Permitting

Since the Hanford Site is designated as a single RCRA facility one hazardous waste permit will be issued and maintained, and will address the treatment, storage and disposal of hazardous wastes. The initial permit will be issued for less than the entire facility, recognizing that not all of the TSD groups will be ready for a permit at the same time. Then the permit will be modified over time to incorporate additional TSD groups. The permit will also incorporate the cleanup actions selected for those past-practice units addressed under RCRA corrective action provisions. The permit will also address post-closure care requirements for those TSD units which have been closed, including those closed in conjunction with a past-practice operable unit.

Remedial and Corrective Action

Either the CERCLA remedial action or the RCRA corrective action process will be used for the past-practice operable units. Under either process, DOE will investigate the contamination at the operable unit and study alternatives for cleaning up the problem. Following a public comment period, the appropriate regulatory agency will select the remedy. The following figure summarizes these processes, and shows that they are functionally equivalent.



A work plan will be developed for each operable unit that will address all activities from the start of field investigation through the proposed selection of a remedy for cleanup. The documentation of the selected remedy will be made available for public comment.

Appendix D provides the definitive work schedule which reflects specific dates for activities in support of the major milestones.

Documentation and Administrative Record

All documents will be categorized as either primary or secondary documents. Primary documents represent the interpretation of key data and

reflect decisions on how to proceed. Secondary documents represent an interim step in a decision making process, or are issued for information only and do not reflect key interpretations. Only primary documents are approved by the regulatory agencies and can be subjected to the dispute resolution process detailed in the Agreement. All documents (including secondary documents) will be reviewed by the regulatory agencies. The specific processes for document review, comment, and revision are contained in the Action Plan.

An Administrative Record will be established for each operable unit and TSD group, and will contain all of the documentation considered in arriving at a CERCLA decision or RCRA permit. A copy of the Administrative Record file, including an index, will be available to the public for review in Richland, Washington. The indexes only shall be available in Seattle and Lacey, Washington.

Action Plan Publication

An updated version of the Action Plan will be published periodically as agreed upon by the three parties.

COMMUNITY RELATIONS

Section 10.0 of this Action Plan summarizes the community relations activities in support of the Agreement. A separate Community Relations Plan has been developed that meets the requirements for having such a plan at NPL sites, and also covers all the community relations needs of the Agreement, including RCRA public involvement requirements. The following summarizes the key elements of the Community Relations Plan:

- Public information repositories will be maintained in Seattle, Richland, and Spokane, Washington, as well as Portland, Oregon. Indexes of key documents and other information will be kept in these repositories for ready access by the public.

- At least one public information meeting will be held in the spring. An optional meeting may be held in the fall.

- Key decision documents will be made available for public comment prior to being finalized. Public meetings concerning these documents will be held as appropriate. Public hearings will be held upon request for draft permits or permit modifications.

- Changes to the Agreement, Action Plan, work schedule and other appendices will be subject to public comment based upon the significance of the pending change, as defined in the Community Relations Plan.

- An active system of keeping the public informed will be implemented. A mailing list will be maintained for distribution of fact sheets and newsletters.

- A federal technical assistance grant program will be administered by EPA

and a public participation grant program will be administered by Ecology.

- Interested Indian Tribes will be afforded special meetings and direct distribution of key documents upon request.

The intent is to involve the public extensively concerning environmental compliance and cleanup of the Hanford Site.

CURRENT STATUS OF ACTIVITIES AT HANFORD

Current status of activities addressed by the Agreement may be obtained from the status reports which are produced as a requirement of this Agreement. These reports are available for inspection at any of the four Information Repositories described in section 10.2 of this action plan. Current status is also provided through regular and special mailings from the three parties. Any person may be placed on the Hanford Site mailing list by contacting any of the community relations contacts shown in Appendix E of this action plan. The Public Information Meeting and other special public involvement meetings held in various locations in Washington and Oregon are also a source of current information. These meetings are announced via newspapers and direct mail notices to those on the Hanford Site mailing list.

1.0 INTRODUCTION

1.1 PURPOSE

The purpose of this action plan is to establish the overall plan for hazardous waste permitting, meeting closure and postclosure requirements, and remedial action under the Federal Resource Conservation and Recovery Act (RCRA) and Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), and the Washington State Hazardous Waste Management Act. All actions required to be taken pursuant to this Agreement shall be taken in accordance with the requirements of all applicable Federal and State laws and regulations.

This plan describes the U.S. Environmental Protection Agency (EPA) and State of Washington regulatory integration, and the methods and processes to be used to implement the Hanford Federal Facility Agreement and Consent Order, hereinafter referred to as "the Agreement," among the State of Washington Department of Ecology (Ecology), the EPA, and the U.S. Department of Energy (DOE). The parties recognize that hazardous waste compliance, permitting, closure and postclosure action, and remedial and corrective action at the Hanford Site will require a fully integrated effort involving the Federal RCRA, CERCLA, and the Washington State Hazardous Waste Management Act. For purpose of this action plan, the term RCRA means the RCRA as amended and the Washington Hazardous Waste Management Act (HWMA).

This action plan contains a work schedule (Appendix D), that is based on a rationale for setting priorities for work to be accomplished. This rationale is identified in Section 3.0. The work schedule identifies the target dates and milestones to be met in implementing this plan. Requirements and standards under Washington's Dangerous Waste Regulations and RCRA for hazardous waste generation and transportation, as specified in Chapter 173-303 of the Washington Administrative Code (WAC) and Title 40, Code of Federal Regulations (CFR), Parts 262 and 263, are not addressed by this action plan. However, this does not relieve the DOE from meeting these requirements.

Appendix A provides a definition of terms and acronyms as used in this action plan.

1.2 REGULATORY AUTHORITIES

This action plan and its appendices are binding and enforceable on all parties unless otherwise noted. The regulatory authorities of the EPA and Ecology currently include, but are not limited to, the following:

- The EPA: Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), as amended, and the Resource Conservation and Recovery Act of 1976 (RCRA), as amended

- Ecology: Hazardous Waste Management Act (HWMA), Chapter 70.105 Revised Code of Washington (RCW), as amended.

Specific regulatory authorities/clarifications include the following.

- On January 31, 1986, Ecology received final authority to implement the State Dangerous Waste Program in lieu of the Federal base RCRA program in the State of Washington. On November 4, 1994, Ecology received authorization from EPA to implement corrective actions under the Hazardous and Solid Waste Amendments of 1984 (HSWA).

- Amendments to the base RCRA regulations (i.e., those not promulgated pursuant to HSWA) do not become effective under RCRA until the State has promulgated regulations to implement them and they have been authorized by EPA. State regulations are effective, however, as provided under state law. In contrast, amendments to HSWA regulations become effective under RCRA immediately whether or not the State has received HSWA authorization.

- On August 19, 1987, CH. 70.105 RCW was amended to allow Ecology to regulate mixed waste. On November 23, 1987, Ecology received authorization from the EPA to regulate mixed waste in the State of Washington.

- Ecology will serve as lead regulatory agency for all provisions of the HWMA including those that have not been authorized pursuant to section 3006 of RCRA.

- The selection of CERCLA remedial actions cannot be delegated to the State of Washington under the existing statute and will, therefore, continue to be exercised by the EPA. However, Ecology will serve as lead regulatory agency for certain past-practice units and will involve EPA as necessary to approve the selected remedy in accordance with an EPA/Ecology Memorandum Of Understanding.

- Ecology shall issue the RCRA permit under the State Dangerous Waste Program. Where the permit involves HSWA provisions for which the state is not authorized, the EPA shall issue that portion of the permit. This will be a joint EPA/Ecology permit. The EPA shall retain an oversight role of Ecology's program and activities under the delegation of authority.

This action plan is based on existing Federal and State regulations. If changes to those regulations create inconsistencies between the action plan and the regulations, the action plan will be modified accordingly.

1.3 ORGANIZATION OF ACTION PLAN

Section 2.0 identifies the major milestones agreed to by all parties under this Agreement. Major interrelationships between milestones are shown.

All parties realize that the Hanford Site is complex, with numerous waste management units. Section 3.0 describes an inventory and unit classification approach for effective organization and continuity of effort.

It also includes criteria to be used for prioritizing the activities to be performed. Section 4.0 identifies a tiered management structure to oversee actions conducted under this plan and describes meetings to be used to ensure effective communications between all parties. Section 5.0 describes the rationale and process by which waste management units at the Hanford Site will interface and be managed in accordance with the above-mentioned authorities. Section 6.0 describes the RCRA treatment, storage, and disposal unit processes and Section 7.0 describes past-practice unit processes in accordance with parts two and three of the Agreement respectively.

Section 8.0 describes the process for facilities transitions. Section 9.0 defines the documents to be generated under this action plan, the classification and listing of primary and secondary documents, and the records systems to be implemented to preserve and access the documentation. Section 10.0 describes the method and processes necessary for community relations and effective public involvement.

Section 11.0 describes the purpose and format of the work schedule (Appendix D). In addition, Section 11.0 identifies the supporting plans that implement this action plan and the work schedule. Section 12.0 establishes a process for parties to propose and implement changes to elements of this Agreement, action plan, appendices, and supporting plans. Section 12.0 also addresses the process for minor field changes. Section 13.0 addresses requirements for management of discharges of liquid effluents to the soil column at Hanford.

2.0 MILESTONES

2.1 INTRODUCTION

This section discusses the milestones that have been agreed to by all parties in support of this Agreement. These milestones represent the actions necessary to ensure acceptable progress toward Hanford Site compliance with RCRA, CERCLA, and the Washington State Hazardous Waste Management Act (HWMA). Appendix D contains interim milestones and target dates which support major milestones.

The major milestones fall into the following categories:

- Disposal of tank wastes
- Cleanup of past-practice units
- RCRA and HWMA operating requirements.

New facilities required to support these activities are included in the category that they most directly support, recognizing that some of the facilities (e.g., laboratories) support more than one category.

The major milestones discussed in this section are based on existing funding and anticipated funding levels in the future. If funding levels are greater than anticipated, or if new sources of funding become available, the parties agree to renegotiate the milestones to decrease the amount of time necessary to complete the work.

2.2 DISPOSAL OF TANK WASTES

This category addresses the closure of the Hanford single-shell storage tanks and the final disposition of the wastes that are stored in single and double-shell tanks. The goals of these milestones are to reduce the current risk associated with single-shell tanks and to implement the long-term solutions for final disposition of all tank wastes. The milestones associated with single-shell tank closure support a schedule to complete all actions in accordance with a 40-year tank closure schedule.

2.3 CLEANUP OF PAST-PRACTICE UNITS

This category addresses the investigation and resultant remedial or corrective actions for past-practice units (see Section 3.3 for discussion of past-practice units) on the Hanford Site. The goal of these milestones is to achieve timely and appropriate cleanup of the Hanford Site. The milestones associated with operable unit investigations and cleanup support a schedule to complete all site cleanup actions in accordance with a 30-year site cleanup schedule.

2.4 RCRA AND HWMA OPERATING REQUIREMENTS

This category addresses those actions necessary to satisfy RCRA requirements and obtain a final operating permit for all TSD units on the Hanford Site. It also addresses closure of those TSD units that are not being closed in conjunction with past-practice units. The goal of these milestones is to achieve compliance with all RCRA and State Dangerous Waste Program requirements.

3.0 UNIT IDENTIFICATION, CLASSIFICATION, AND PRIORITIZATION

3.1 INTRODUCTION

This section describes what constitutes a waste management unit at the Hanford Site. In addition, it describes how waste management units are classified, prioritized, and grouped for common investigation and response or corrective action.

A waste management unit represents any location within the boundary of the Hanford Site that may require action to mitigate a potential environmental impact. This would include all solid waste management units (SWMUs) as specified under Section 3004(u) of RCRA. These waste management units were previously defined in the Hanford Site Waste Management Units Report (see Section 3.5). Waste management units include the following:

- Waste disposal units (including RCRA disposal units)
- Unplanned release units (including those resulting from spills)
- Inactive contaminated structures
- RCRA treatment and storage units
- Other storage areas.

The parties recognize and agree that certain activities related to the stabilization and transition of facilities, before or after the shutdown decision has been made, through the final disposition of structures by DOE, are subject to RCRA, CERCLA or other regulatory controls related to the Agreement. The generation and/or discharge of (Ecology/EPA) regulated substances or wastes (including the treatment, storage and disposal of those substances or wastes) shall be subject to this Agreement. Appropriate specific requirements and/or Tri-Party Agreement Milestones for the completion of key activities that generate or discharge regulated substances or wastes shall be incorporated into the Action Plan. Agreed-upon key transition, surveillance and maintenance, and disposition activities not subject to Ecology/EPA regulation that are critical path to cleanup of an aggregate area will be established as target dates. The goal is to conduct regulated and nonregulated work in an orderly sequence to insure coordination with other cleanup actions. Section 8.0 defines the process for identification of key Hanford facilities, and the subsequent process for conducting their transition, surveillance and maintenance, and/or disposition. Facilities which are fully dispositioned under the RCRA closure process (see Section 3.2), or are dispositioned in conjunction with an operable unit cleanup (see Section 3.3), are not addressed under Section 8.0. DOE will enter into negotiations for transition or disposition of key facilities within three months of a shutdown notice or decision to proceed with disposition, respectively. Such negotiations will be completed within 6 months from initiation. If they are not, any party may initiate dispute resolution in accordance with this Agreement.

In the event that a contaminated structure is found to be the source of a release (or presents a substantial threat of a release) of hazardous substances, hazardous wastes, or hazardous constituents to the environment, the investigation and remediation of such a release (to include remediation of structures, as necessary), where subject to CERCLA or RCRA, shall be subject to this Agreement. Specific requirements shall be incorporated into the Action Plan as appropriate. Releases which have already been identified have been included in the Action Plan as waste management units and assigned to operable units (see Appendix C) and have been included in the Waste Information Data System (WIDS).

As part of any action being taken under either RCRA or CERCLA for a contaminated structure, EPA and Ecology shall consider available information related to decommissioning activities, including environmental impact statements. All hazardous wastes generated by the decommissioning activities or stored at these storage areas shall be managed in accordance with applicable Federal and State hazardous waste regulations.

3.2 TREATMENT, STORAGE, AND DISPOSAL UNITS

Treatment, storage, and disposal units are those units which will be permitted (for operation and/or postclosure care) and/or closed, under the Washington State Dangerous Waste Regulations (173-303 WAC) and the applicable provisions of HSWA. Appendix B provides a current listing of these units, or group of units (with individual units defined); identifies whether the TSD group/unit will be permitted for operation or closed; and identifies the assigned operable unit, if applicable. A TSD group represents a combination of units that are combined for purposes of preparing a permit application or closure plan. The schedule of permitting activities or closures will be established by Ecology in cooperation with the EPA and DOE. Some TSD groups/units, primarily land disposal units, are included within operable units (see Section 3.3 below) and will be addressed concurrently with past-practice activities as defined in Section 5.5. A further discussion of TSD groups/units is provided in Section 6.0.

3.3 PAST-PRACTICE UNITS

A past-practice unit is a waste management unit where wastes or substances (intentionally or unintentionally) have been disposed and that is not subject to regulation as a TSD unit as specified in Section 3.2.

Due to the relatively large number of past-practice units at the Hanford Site, a process has been established for organizing these units into groups called operable units. The concept of operable units is to group the numerous units (primarily by geographic area) into manageable components for investigation and response action and to prioritize the cleanup work to be done at the Site.

The WIDS (see Section 3.5) contains information on waste management units that was used to support the development of operable units. This information, combined with operable unit identification and prioritization criteria described in this section, resulted in the initial designation of approximately 75 operable units across the Hanford Site. Each of the operable units will be subject to an investigation in the form of either a CERCLA or a

RCRA past-practice process as described in Sections 7.3 and 7.4, respectively. Appendix C includes a list of all the past-practice units on the Hanford Site by operable unit. In addition, current listings of all past-practice units on the Hanford Site are maintained electronically in the WIDS.

Some TSD units, primarily land disposal units, will be investigated and managed in conjunction with past-practice units and have been assigned to appropriate operable units (see Appendix B for current assignment of TSD groups/units to operable units). The information necessary for performing RCRA closures within an operable unit will be provided in coordination with various RFI/CMS documents. These documents will include a coordinated past-practice site investigation/RCRA closure/RCRA corrective action approach in order to efficiently implement applicable regulations. Those TSD units not assigned to an operable unit are typically treatment or storage units that are likely to be "clean closed" as described in Section 6.3.1.

Individual past-practice units (and selected TSD units) have been assigned to a specific operable unit based on the following criteria:

- General patterns of waste disposal from specific process sources
- Spatial relationship to other waste units
- Contribution to the same groundwater contaminant plume
- Physical characteristics of area (e.g., geologic/hydrogeologic)
- Access considerations (e.g., buildings, buried pipes)
- Anticipation of similar remedial action strategy (economy of scale)
- Reasonable number of total units to effectively manage.

In addition to the operable units discussed above, groundwater operable units can be established where multiple sources from different operable units have contributed to the same plume. Operable units that are associated with a groundwater operable unit are referred to as source operable units. The schedule for investigation of each groundwater operable unit will coincide with the schedule for investigation of the source operable unit that is the major contributor to the plume. Other associated source operable units that are lower priority will be investigated at a later time, in accordance with the established criteria for prioritization of operable units.

3.4 PRIORITIZATION

This section describes the bases for prioritizing operable units and those TSD groups/units that are not included within operable units.

3.4.1 Prioritization of Operable Units

Operable units are prioritized based on an initial assessment of risk potential to ensure that action is focused on the greater hazard. Criteria

for evaluating and remediating potential hazards include the following information:

- Volume of wastes or hazardous substances
- Hazardous substances identification and concentration
- Toxicity or health effects of the hazardous substances
- Potential for migration to receptors via all environmental pathways.

In addition, the following factors are used to determine priority:

- Available technology to investigate or remediate the operable unit
- Operation consideration (e.g., timing of decommissioning activities)
- Consideration to those operable units that include TSD units.

Based on criteria listed above, and to focus resources on waste sites near the river, the operable units in the 100 and 300 Area have been given high priority and investigations are nearing completion. The first six operable units to be investigated in the 200 Area have been determined based on the criteria listed above. Subsequent 200 Area operable units will be prioritized based on the above criteria as well as on information gained during the initial investigations. Prioritization of investigations of 200 Area operable units is outlined in the work schedule located in Appendix D. Closure of the single-shell tanks is not addressed under the past-practice process and will be addressed under the RCRA closure program (see Appendix B).

3.4.2 Prioritization of Treatment, Storage, and Disposal Units

All TSD groups/units are subject to a permitting and/or closure process described in Section 6.0. Those TSD groups/units assigned to an operable unit will be prioritized in conjunction with past-practice priorities for purposes of investigation. The order in which permit applications or closure plans will be developed for the remaining TSD groups/units is based on consideration of the following criteria.

- Environmental Risk. The risk to public health and environment is the most important consideration. Any action that will significantly reduce the risk to public health and/or the environment will be considered the highest priority.

- Waste Minimization. Waste minimization is central to the goal of reducing environmental risks and bringing about environmental compliance for continuing operations and for new units at the Hanford Site. Therefore, the parties agree that Ecology's "Priority Waste Management Policy" (Ecology 86-07), established pursuant to CH. 70.105.150 RCW, shall be adhered to as guidance for purposes of establishing permitting priorities, in addition to evaluating proposed changes in operational

procedures, and for the development and implementation of new waste management strategies. This policy defines the following prioritized actions: (1) waste reduction, (2) recycling, (3) treatment, (4) stabilization, and (5) land disposal.

- Permit Application Dates Required by Law. The Hazardous and Solid Waste Amendments of 1984 (HSWA) mandated dates for submittal of Part B permit applications. The dates for submitting dangerous waste (excluding mixed waste units) Part B permit applications were as follows:

  - Land disposal units: November 8, 1985 (all required Part B applications were submitted prior to this date)

  - Incineration units: November 8, 1986 (not applicable for the Hanford Site)

  - Treatment and storage units: November 8, 1988.

  Part A permit applications for all mixed waste units that will be operating under interim status were due by May 23, 1988 (this date was met for all such known units). Part B permit applications for the disposal of mixed waste to land disposal units were due by November 23, 1988 (this date was met for all such known units), including the certification statement required by Section 3005(e)(2) of RCRA, that the unit is in compliance with the interim status groundwater monitoring requirements. There are no statutory Part B permit application dates for mixed waste treatment and storage units.

- Operational Requirements. Some operational considerations are important for maintaining or achieving environmental compliance, continuation of Hanford Site operations, or achieving cleanup in a cost-effective manner. Examples of such operational considerations include permitting a treatment unit for operation or accelerating closure actions to complement decontamination and decommissioning of related structures.

3.5 WASTE INFORMATION DATA SYSTEM/ WASTE MANAGEMENT UNITS REPORT

The Waste Information Data System (WIDS) is the electronic database of waste site information for the Hanford Site. The WIDS identifies all waste management units on the Hanford Site, and describes the current status of each unit (e.g., active/inactive, TSD, CERCLA past-practice or RCRA past-practice), and includes other descriptive information (e.g., location, waste types.) The system is maintained by the DOE in accordance with the WIDS change control system, which documents and traces all additions, deletions and/or other changes dealing with the status of waste management units.

The information in WIDS reflects Appendix C, which contains the official list of waste sites and/or releases which require remedial investigation or action under § 120 of CERCLA.

A waste management report, in a format agreed upon by the Parties, shall be generated annually by the DOE in January of each year, and posted electronically for regulator and public access. This report shall reflect all changes made in waste management unit status during the previous year.

4.0 AGREEMENT MANAGEMENT

4.1 PROJECT MANAGER ROLE

The DOE and the lead regulatory agency(ies) (see Section 5.6 for discussion of lead regulatory agency) shall each designate an individual as a project manager for each operable unit, TSD group/unit or specific milestone to be completed under this Agreement. Project managers will only be identified for those areas where effort is ongoing or planned in the near future. A listing of currently assigned project managers shall be maintained and distributed to all parties by the DOE. Each project manager shall represent his/her respective party and keep his/her agency informed on the status and any problems that arise.

Project managers from each party must have experience and capabilities necessary to carry out their assigned responsibilities. The lead regulatory agency(ies) will assign a project manager with the experience and capability to provide all the routine regulatory oversight necessary for DOE's successful completion of the assigned milestone. DOE will assign a project manager with the experience and capability to manage the project, to oversee the actions of contractor staff, and to maintain regulatory compliance necessary to the completion of the milestone. The project manager from the lead regulatory agency (see Section 5.6 for discussion of lead regulatory agency) shall be responsible for regulatory oversight of all activities required by this action plan for completion of that milestone.

The primary responsibilities of the project managers are to implement the scope, terms, and conditions of the Agreement, direct and provide guidance to their respective contractors and staff, maintain effective communication among each other, and report status to their respective management.

Subject to the limitations set forth in Article XXXVII (Access) of the Agreement and, in addition to other authorities and responsibilities, the Ecology and EPA project managers, or their designated representative(s), shall have the authority to: (1) notify and/or take/issue compliance actions deemed necessary should DOE and/or its contractors fail to comply with Agreement terms, (2) take samples, request split samples of the DOE samples, and ensure that work is performed properly and pursuant to the EPA protocols as well as pursuant to the attachments and plans incorporated into this Agreement; (3) observe all activities performed pursuant to this Agreement, take photographs, and make sure other reports are prepared on the progress of the work as the project manager deems appropriate; and (4) review records, files, and documents relevant to this Agreement. In addition, the project manager for the lead regulatory agency has authority to require changes to any procedural, design, or specification document that is referenced in a supporting work plan. Such required changes will be subject to the appropriate dispute resolution process as specified in the Agreement.

The DOE project managers or their representatives shall be physically present on the Hanford Site or reasonably available to supervise work performed at the Hanford Site during the performance of work pursuant to this Agreement and shall be available to the EPA and Ecology project manager for the pendency of this Agreement.

Other authorities and responsibilities are identified in the context of this action plan. The project managers may delegate their authority and responsibilities with notice to the other affected party(ies).

Project managers for DOE and the lead regulatory agency shall meet to discuss progress (including the status of all key project tasks), address issues, and review near-term plans pertaining to their respective projects, milestones, operable units and/or TSD groups/units. For TSD groups and operable units, meetings shall be held monthly, unless the project managers agree that a meeting is not appropriate. The meetings shall emphasize technical issues and work progress. The assigned DOE project manager shall provide current work schedule information including project task element schedule status and associated "float" (defined as the projected number of days until a task becomes critical path), marked up schedules from the RI/FS work plan, closure plan, etc., and appropriate detailed near-term schedules prior to the meeting. The schedules shall address all ongoing activities associated with the milestones, operable unit or separate TSD groups/units, to include actions on specific units (e.g., sampling). These schedules will be provided to all parties and reviewed at the meeting. Any agreements and commitments (within the project manager's level of authority) resulting from the meeting will be prepared and signed by all parties as soon as possible after the meeting. Signed meeting minutes will be issued to the lead regulatory agency and the administrative record by the DOE project manager summarizing the discussion at the meeting. The minutes will include, at a minimum, the following:

- Status of previous agreements and commitments
- Any new agreements and commitments
- Schedules (with current status noted)
- Any approved changes signed off at the meeting in accordance with Section 12.2

In the event that the lead regulatory agency project manager forms an opinion that DOE actions or failure to act, jeopardizes completion of an Agreement milestone, they shall notify DOE of that fact in a timely manner. Such notification shall be in writing and shall provide the project manager's detailed rational for the opinion. On receipt, DOE's project manager will reply in writing within 15 working days. Such reply will either assure that compliance is intact and that DOE's ability to meet Agreement milestones has not been unduly jeopardized, or will describe in detail, expected impact(s), causative factors, and action(s) DOE has/is taking in response.

4.2 INTERAGENCY MANAGEMENT INTEGRATION TEAM

The DOE, EPA and Ecology shall each designate a representative to act as a member of the Interagency Management Integration Team (IAMIT). The DOE representative shall be an Assistant Manager (in the instance of DOE’s Richland Operations Office the DOE has designated the Assistant Manager for Planning and Integration, in the instance of DOE’s Office of River Protection, DOE shall designate two (2) IAMIT members i.e. the ORP Assistant Manager for

Waste Treatment and Immobilization Plant, and the ORP Assistant Manager for Tank Farms). The EPA representative shall be the Program Manager, Hanford Project Office. The Ecology representative shall be the Program Manager for the Nuclear Waste Program. The assigned representatives acting as members of the IAMIT shall be reasonably available in the Tri-Cities to perform the roles described in this section. Roles of the IAMIT or their designated representatives shall include the following responsibilities.

- The IAMIT shall be the first level of formal dispute resolution for those issues which remain unresolved by the project managers. It is the role of the IAMIT to act decisively and effectively to resolve issues within their respective authorities.

- The IAMIT shall have approval authority for changes to the Agreement as specified in Section 12.0 of this Action Plan.

- The IAMIT shall act as the primary interface with the established Hanford Advisory Board.

- The IAMIT shall serve as the primary point of focus for the three parties for discussion and resolution of budget issues.

IAMIT meetings will be conducted as needed, with a focus on making decisions to ensure progress in meeting Agreement milestones and to resolve disputes. IAMIT meetings to resolve disputes, to consider change requests, or to take other action on a milestone, operable unit or TSD unit will generally only involve the affected lead regulatory agency and DOE IAMIT members. A meeting of the IAMIT members of all 3 parties shall be conducted at least quarterly to discuss matters of concern to all three parties. Any agreements and commitments (within the IAMIT level of authority) resulting from the meeting will be prepared and signed by all parties as soon as possible after the meeting. Signed meeting minutes will be issued to the lead regulatory agency and the administrative record by the DOE summarizing the discussion at the meeting. The minutes will include, at a minimum, the following:

- Status of previous agreements and commitments

- Any new agreements and commitments

- Schedules (with current status noted)

- Any approved changes signed off at the meeting in accordance with Section 12.2.

4.3 SENIOR EXECUTIVE COMMITTEE

The DOE, EPA and Ecology shall each designate a representative to act as a member of the Senior Executive Committee (SEC). The DOE representative shall be the Deputy Manager for the Hanford Site or Manager of DOE's Office of River Protection in the instance of tank waste remediation issues. The EPA representative shall be the Director, Office of Environmental Clean Up. The Ecology representative shall be Ecology's Deputy Director.

SEC meetings shall be conducted as needed, with a focus on making decisions to ensure progress in meeting Agreement milestones and to resolve disputes. SEC meetings to resolve disputes, will generally only involve the affected lead regulatory agency and DOE SEC member. A meeting of the SEC members of all 3 parties shall be conducted as necessary.

5.0 INTERFACE OF REGULATORY AUTHORITIES

5.1 REGULATORY PROGRAMS

The RCRA, CERCLA, and State Dangerous Waste Program overlap in many areas. In general, CERCLA was created by Congress to respond to the release of hazardous substances and to investigate and respond to releases and potential releases from past-practice activities. The RCRA and State Dangerous Waste Program were created to prevent releases at active facilities that generate, store, treat, transport, or dispose of hazardous wastes or hazardous constituents. The RCRA, as amended by HSWA, also provides for corrective action for releases at RCRA facilities regardless of time of release. This section is intended to clarify how these various programs will interface to achieve an efficient regulatory program.

Regulatory authority shall remain with the regulatory agency having legal authority for those decisions, regardless of whether that agency is the lead regulatory agency for the work (see Section 5.6 for lead regulatory agency concept). The lead regulatory agency shall oversee the work, and brief and obtain any necessary approvals from the agency with regulatory authority. For example, where Ecology is the lead regulatory agency at a CERCLA site, it shall brief EPA as necessary to obtain EPA approval before a remedial action is selected.

5.2 CATEGORIES OF WASTE UNITS

There are three categories of units and related statutory or regulatory authorities that will be addressed under this action plan. These categories are TSD unit, RCRA past-practice (RPP) unit, and CERCLA past-practice (CPP) unit, and are defined as follows.

5.2.1 Treatment, Storage, and Disposal Unit

This is a unit that has treated, stored or disposed of RCRA hazardous waste after November 19, 1980 or State-only dangerous waste, after March 12, 1982, or that is currently treating, storing, or disposing of RCRA hazardous waste or State-only dangerous waste. It also includes units at which such wastes will be stored, treated, or disposed in the future, except as provided by 173-303-200 WAC (waste accumulation times that do not require permitting). The TSD units are those that must receive a RCRA permit for operation or postclosure care and/or that must be closed to meet State standards. Section 6.0 describes the processes to be used to permit and/or close TSD units.

5.2.2 RCRA Past-Practice Unit

The purpose of this category is to address releases of RCRA hazardous wastes or constituents from sources other than TSD units at the Hanford Site regardless of the date of waste receipt at the unit. This includes single-incident releases at any location on the Site and corrective action beyond the Site boundary. Corrective action will be conducted under the authorized state HWMA corrective action program. Corrective action authority is based on three separate components of HSWA as follows:

- RCRA Section 3004(u). Section 3004(u) of RCRA provides authority for corrective action at solid waste management units at a facility seeking a RCRA permit. This includes units that received any solid waste, as defined in 40 CFR Part 261.2, including RCRA hazardous wastes or hazardous constituents, at any time. Hazardous constituents are those that are listed in 40 CFR Part 261 Appendix VIII. Those waste management units that will be addressed as RPP units under Section 3004(u) are so designated in Appendix C.

- RCRA Section 3004(v). RCRA Section 3004(v) specifies that corrective action to address releases from a RCRA facility will extend beyond the physical boundaries of the Site, to the extent necessary to protect human health and the environment. Section 3004(v) does not apply to releases within the boundary of the Hanford Site.

- RCRA Section 3008(h). RCRA Section 3008(h) is a broad corrective action authority that is applicable to the Hanford Site as long as RCRA interim status is maintained. It is more expansive than RCRA Section 3004(u), in that it can be used to address corrective action for any release of RCRA hazardous waste or constituents, including single-spill incidents, and can be used to address releases that migrate offsite.

5.2.3 CERCLA Past-Practice Unit

The CPP units include units that have received hazardous substances, as defined by CERCLA, irrespective of the date such hazardous substances were placed at the unit. Those waste management units that will be addressed as CPP units are so designated in Appendix C.

For the purposes of this action plan, it is necessary to distinguish between a CPP unit, a RPP unit, and a TSD unit. Any TSD unit, as defined in Section 5.2.1, will be classified as a TSD unit, rather than a CERCLA unit, even if it is investigated in conjunction with CPP units. The CPP and RPP units will be distinguished in accordance with Section 5.4.

5.3 MANAGEMENT OF TREATMENT, STORAGE, AND DISPOSAL UNITS

As previously stated, TSD units are identified in Appendix B. Any additional TSD units that are subsequently identified shall be added to Appendix B in accordance with the process described in Section 12.2.

Unless closed in accordance with Sections 6.3.1 or 6.3.3, TSD units shall be permitted for either operation or postclosure care pursuant to the authorized State Dangerous Waste Program (173-303 WAC) and HSWA. Prior to permitting or closure of TSD units, DOE shall achieve (in accordance with the work schedule contained in Appendix D) and maintain compliance with applicable interim status requirements. All TSD units that undergo closure, irrespective of permit status, shall be closed pursuant to the authorized State Dangerous Waste Program in accordance with 173-303-610 WAC.

5.4 MANAGEMENT OF PAST-PRACTICE UNITS

This section describes the rationale for placing units in either a RCRA or a CERCLA past-practice category for corrective action as defined below. In many cases, either authority could be used with comparable results. The categories are as follows:

- The CPP units, (see Section 7.3)
- The RPP units, under the authorized state corrective action program (see Section 7.4).

Since the Hanford Site was proposed for inclusion on the National Priorities List (NPL) (Federal Register, June 24, 1988), and was placed on the NPL on November 3, 1989 (Federal Register, October 4, 1989), the parties agree that any units managed as RPP units shall address all CERCLA hazardous substances for the purposes of corrective action. The parties agree that all of the wastes regulated under the State Dangerous Waste Program (173-303 WAC) shall be addressed as part of any CERCLA response action or RCRA corrective action.

Section 121 of CERCLA, with provision for waivers in a limited number of circumstances, requires that remedial actions attain a degree of cleanup that meets "applicable or relevant and appropriate Federal and State environmental requirements" (ARAR). Accordingly, (1) all State-only hazardous wastes will be addressed under CERCLA, and (2) RCRA standards for cleanup or TSD requirements (as well as other applicable or relevant and appropriate Federal and State regulations) will be met under a CERCLA action (See Section 7.5 for further discussion of cleanup requirements). This eliminates many discrepancies between the two programs and lessens the significance of whether an operable unit is placed in one program or the other.

All past-practice units within an operable unit will be designated as either RPP units, with Ecology as the lead regulatory agency, or CPP units, with either the EPA or Ecology as the lead regulatory agency (See Appendix C). This designation will ensure that only one past-practice program will be applied at each operable unit. The corrective action process selected for each operable unit shall be sufficiently comprehensive to satisfy the technical requirements of both statutory authorities and the respective regulations.

If an operable unit consists primarily of past-practice units (i.e., no TSD units or relatively insignificant TSD units), CERCLA authority will generally be used for those past-practice units. The CERCLA authority will also be used for past-practice units in which remediation of CERCLA-only materials comprises the majority of work to be done in that operable unit. In some cases Ecology will be the lead regulatory agency for remedial action under CPP authority.

The RPP authority will generally be used for operable units that contain significant TSD units and/or lower priority past-practice units.

Currently assigned RPP and CPP designations are shown in Appendix C.

Further assignments will be made in accordance with Section 12.2 prior to initiation of any actions for those operable units.

The EPA and Ecology shall jointly determine whether an operable unit will be managed under the authority of RPP or CPP. Such designation may be changed due to the discovery of additional information concerning the operable unit. If a change in authority is proposed after the Remedial Investigation/ Feasibility Study (RI/FS) or RCRA Facility Investigation/Corrective Measures Study (RFI/CMS) work plan, as described in Section 7.0, has been submitted to the lead regulatory agency (see Section 5.6 on discussion of lead regulatory agency), the change requires the agreement of all parties.

5.5 TREATMENT, STORAGE, AND DISPOSAL UNITS AND PAST-PRACTICE UNITS INTERFACE

In some cases, TSD units are closely associated with past-practice units at the Hanford Site, either geographically or through similar processes and waste streams. Although disposition of such units must be managed in accordance with Section 6.0, a procedure to coordinate the TSD unit closure or permitting activity with the past-practice investigation and remediation activity is necessary to prevent overlap and duplication of work, thereby economically and efficiently addressing the contamination. In Appendix B, selected TSD groups/units, primarily land disposal units, have been initially assigned to operable units based on the criteria defined in Section 3.3. The information necessary for performing RCRA closures/postclosures within an operable unit will be provided in various RFI/CMS documents. The initial work plan will contain a Sampling and Analysis Plan (SAP) for the associated RCRA units and it will outline the manner in which RCRA closure/postclosure plan requirements will be met in the work plan and subsequent documents. The selected closure/postclosure method and associated design details will (unless otherwise agreed to by the parties) be submitted as part of the CMS report at a later date, as specified in the work plan. The proposed closure/postclosure activities contained in the CMS report will: (1) meet RCRA closure standards and requirements, (2) be consistent with closure requirements specified in the Hanford Site-Wide (RCRA) permit, and (3) be coordinated with the recommended remedial action(s) for the associated operable unit. Additionally, the closure/postclosure implementation schedule will reflect an overall prioritization between closure/postclosure and other remedial activities within the subject operable unit, considering environmental protection, health and safety, availability of technology, etc. Each RFI/CMS closure document will be structured such that RCRA closure requirements can be readily identified for a separate review/approval process and RCRA closure/postclosure requirements can be incorporated in the RCRA Permit. If at a later date TSD groups/units need to be deleted from or added to an operable unit, the procedures defined in Section 12.2 will be used.

Ecology, the EPA, and DOE agree that past-practice authority may provide the most efficient means for addressing mixed-waste groundwater contamination plumes originating from a combination of TSD and past-practice units. However, in order to ensure that TSD units within the operable units are brought into compliance with RCRA and State hazardous waste regulations, Ecology intends, subject to part four of the Agreement, that all response or corrective actions, excluding situations where there is an imminent threat to the public health or environment as described in Section 7.2.3, will be

conducted in a manner which ensures compliance with the technical requirements of the HWMA (Chapter 70.105 RCW and its implementation regulations). In any case, the parties agree that CERCLA remedial actions and, as appropriate, HSWA corrective measures will comply with ARARs.

5.6 LEAD REGULATORY AGENCY CONCEPT

The EPA and Ecology have selected a lead regulatory agency approach to minimize duplication of effort and maximize productivity. Either the EPA or Ecology will be the lead regulatory agency for each operable unit, TSD group/unit or milestone.

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. The lead regulatory agency shall brief and obtain any necessary approvals from the agency with regulatory authority in accordance with the EPA/Ecology MOU. Regulatory oversight activity, including preparation of responses to documents submitted by the DOE, will be performed by the lead regulatory agency for each operable unit, TSD group/unit or milestone. The non-lead regulatory agency will not assign staff to provide any oversight or support.

The assignment of the lead regulatory agency for an operable unit, TSD group/unit or milestone will be based on the following criteria.

- The EPA will generally be the lead regulatory agency when the operable unit, TSD group/unit or milestone involves:
    - Operable units that contain no TSD units or that contain low-priority TSD units
    - Operable units that contain primarily CERCLA-only materials.
- Ecology will generally be the lead regulatory agency when the operable unit, TSD group/unit or milestone involves:
    - Operable units that consist of major TSD units, with limited past-practice units
    - Operable units that contain higher priority TSD units and lower priority past-practice units.
- Ecology will be lead regulatory agency for all TSD units and TSD groups.

In some cases, the above criteria may overlap, such that either the EPA or Ecology could be assigned as the lead regulatory agency. In this situation, other criteria would be used, such as available resources to undertake additional work in a timely manner, the designation and characteristics of an adjoining operable unit, or whether the characteristics of a given operable unit are similar to the characteristics of another

operable unit that has already been managed by either agency.

Currently assigned lead regulatory agency designations are shown in Appendix C for each operable unit. Additional assignments will be made in accordance with Section 12.0 prior to any action on the operable unit, TSD group/unit or milestone. The lead regulatory agency shall maintain its role through completion of all required actions.

The decision as to which regulatory agency will assume the lead role will be a joint determination by the EPA and Ecology (see Paragraph 88 of this Agreement). Such determinations are subject to change based on additional information subsequently discovered concerning an operable unit, or for any other reason, as agreed upon by the EPA and Ecology. The parties intend that once the lead regulatory agency has been assigned, the lead regulatory agency designation will not change except for an extreme circumstance.

5.7 INTEGRATION WITH THE NATIONAL ENVIRONMENTAL POLICY ACT (NEPA)

The purpose of the NEPA requirements is to ensure that potential environmental impacts of investigation and cleanup activity are assessed. These assessments, when determined to be required, will be made primarily as part of the CERCLA response action and RCRA corrective action processes. These processes will be supplemented, as necessary, to ensure compliance with NEPA requirements.

6.0 TREATMENT, STORAGE, AND DISPOSAL UNIT PROCESS

6.1 INTRODUCTION

This section discusses the requirements of RCRA and the State of Washington Hazardous Waste Management Act, Chapter 70.105 RCW, and pertains to all units that were used to store, treat, or dispose of RCRA hazardous waste and hazardous constituents after November 19, 1980; State-only hazardous waste after March 12, 1982; and units at which such wastes will be stored, treated, or disposed in the future, except as provided by 173-303-200 WAC.

A list of these units, or grouping of units, is provided in Appendix B. Section 3.0 identifies the criteria by which these units will be scheduled for permitting and closure actions.

Some of the TSD groups/units (primarily land disposal units) have been included in operable units, as discussed in Section 3.3. The information necessary for performing RCRA closures within an operable unit will be provided in coordination with various RFI/CMS documents. These documents will include a coordinated past-practice site investigation/RCRA closure/RCRA corrective action approach in order to implement applicable regulations as discussed in Section 5.5.

Some of the TSD groups/units (primarily those located within large processing facilities) will be integrated with the disposition of the facility, and therefore closed in accordance with the process defined in Section 8.0. These units are those that have physical closure actions that need to be done in conjunction with the physical disposition actions in the facility (e. g. removal of structural components). Even though TSD units are closed in accordance with Section 8.0, applicable requirements defined in this section still apply (e.g. 6.5 Quality Assurance).

Currently identified actions necessary to bring TSD units into compliance with Federal and State laws are identified in the work schedule (see Appendix D) including necessary interim milestones. These interim milestones are consistent with the major milestones for achieving interim status compliance requirements specified in Section 2.4. A schedule for completing interim status compliance actions is provided as part of Appendix D.

The RCRA land disposal restrictions (LDR) require that established treatment requirements be met prior to land disposal of hazardous wastes. While treatment capacity generally exists for the nonradioactive hazardous wastes which are subject to LDR, treatment is currently not available for the mixed wastes subject to LDR which require storage at the Hanford Site.

Ecology has received authorization from EPA to implement certain LDR provisions of RCRA pursuant to Section 3006 of RCRA. Accordingly, these authorized state provisions are effective in lieu of the Federal requirements. Both EPA and Ecology anticipate that Ecology will receive authorization for the additional LDR provisions in the future. EPA and Ecology intend to use the LDR provisions under M-26 and other HSWA provisions which have comparable state analogs that have not yet been authorized as an example of regulatory streamlining at the Hanford Site, by designating Ecology as the lead regulatory agency for those provisions under applicable state law.

This includes review and approval of LDR annual reports, plans, and schedules for compliance with M-26-00. While EPA must retain legal authority over portions of the LDR which are not yet authorized to the state, EPA will not assign staff to oversee the routine completion of activities related to M-26-00. In the event that EPA involvement in a specific matter is requested by Ecology or is otherwise necessary, Ecology staff will brief EPA and EPA will become involved to the extent necessary to help resolve that specific matter. EPA and Ecology intend that such involvement on the part of EPA will be the exception, rather than the rule.

In accordance with Milestone M-26-00, DOE has submitted the "Hanford Land Disposal Restrictions Plan for Mixed Wastes," (LDR Plan) to Ecology, as the lead regulatory agency. This plan describes a process for managing mixed wastes subject to LDR at the Hanford Site and identifies actions which will be taken by DOE to achieve full compliance with LDR requirements.

These actions will be taken in accordance with approved schedules specified in the LDR Plan and in the Work Schedule (Appendix D). The DOE will submit annual reports which shall update the LDR Plan and the prior annual report, including plans and schedules. The annual report will also describe activities taken to achieve compliance and describe the activities to be taken in the next year toward achieving full compliance. The LDR Plan and annual reports are primary documents, subject to review and approval by Ecology. Ecology also has approval authority for schedules in the LDR Plan and annual reports. Changes to approved final schedules must be made in accordance with the Change Control System described in Section 12.0.

6.2 TREATMENT, STORAGE, AND DISPOSAL PERMITTING PROCESS

The Hanford Site has been assigned a single identification number for use in State Dangerous Waste Program/RCRA permitting activity. Accordingly, the Hanford Site is considered to be a single RCRA facility, although there are numerous unrelated units spread over large geographic areas on the Site.

Since all of the TSD groups/units cannot be permitted simultaneously, Ecology and the EPA will issue the initial permit for less than the entire facility. This permit will eventually grow into a single permit for the entire Hanford Site. The Federal authority to issue a permit at a facility in this manner is found in 40 CFR 270.1(c)(4). Any units that are not included in the initial permit will normally be incorporated through a permit modification. At the discretion of Ecology and EPA, the permit revocation and reissuance process may be used.

The process of permit modification is specified in 173-303-830 WAC and 40 CFR 270.41. A permit modification does not affect the term of the permit (a permit is generally issued for a term of 10 years). Proposed modifications are subject to public comment, except for minor modifications as provided in 173-303-830(4) WAC and 40 CFR 270.42.

The process of revocation and reissuance is specified in 173-303-830 WAC and 40 CFR 270.41. Revocation and reissuance means that the existing permit is revoked and an entirely new permit is issued, to include all units permitted as of that date. In this case, all conditions of the permit to be

reissued would be open to public comment and a new term (10 years in most cases) would be specified for the reissued permit.

Figure 6-1 depicts a flowchart for processing all operating permits for TSD groups/units and for processing postclosure permits for TSD groups/units that will close with hazardous wastes or constituents left in place. The permitting process applies to existing units, expansion of units under interim status, and new units (units that do not have interim status and must have a permit prior to construction).

Ecology shall normally be responsible for drafting permit conditions, including those related to HSWA requirements. Until the HSWA provisions have been delegated from EPA to Ecology through the authorization process, EPA will maintain final approval rights for those permit conditions pursuant to HSWA authority that have not been delegated. Therefore, certain conditions of the joint permit will be enforceable by Ecology, others will be enforceable by EPA, and some conditions will be enforceable by both agencies. The permit will identify which conditions are enforceable by each agency.

Disputes concerning any HWMA requirements, will be addressed in accordance with Article VIII of the Agreement.

Ecology will have the responsibility for drafting the permit and permit modifications for all TSD groups/units, ensuring that the Part B permit application is complete, and preparing the Notices of Deficiency (NOD) to the DOE.

The Part B permit application is a primary document, as defined in Section 9.1. The review procedures, as specified in Section 9.2.2, will be followed. In the event that issues cannot be resolved through the NOD process, the appropriate dispute resolution process can be invoked.

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. The parties have addressed the statutory requirement through the preliminary identification and assignment of all known past-practice units to specific operable units (see Section 3.0). These operable units have been prioritized and scheduled for investigation in accordance with the work schedule (Appendix D). It is the intent of all parties that this requirement 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.

Ecology, the EPA, and DOE will follow all current versions of applicable Federal and State statutes, regulations, guidance documents, and written policy determinations that pertain to the permitting process, including postclosure permits, for TSD groups/units. Public participation requirements for permitting TSD groups/units will be met and are addressed in Section 10.0.

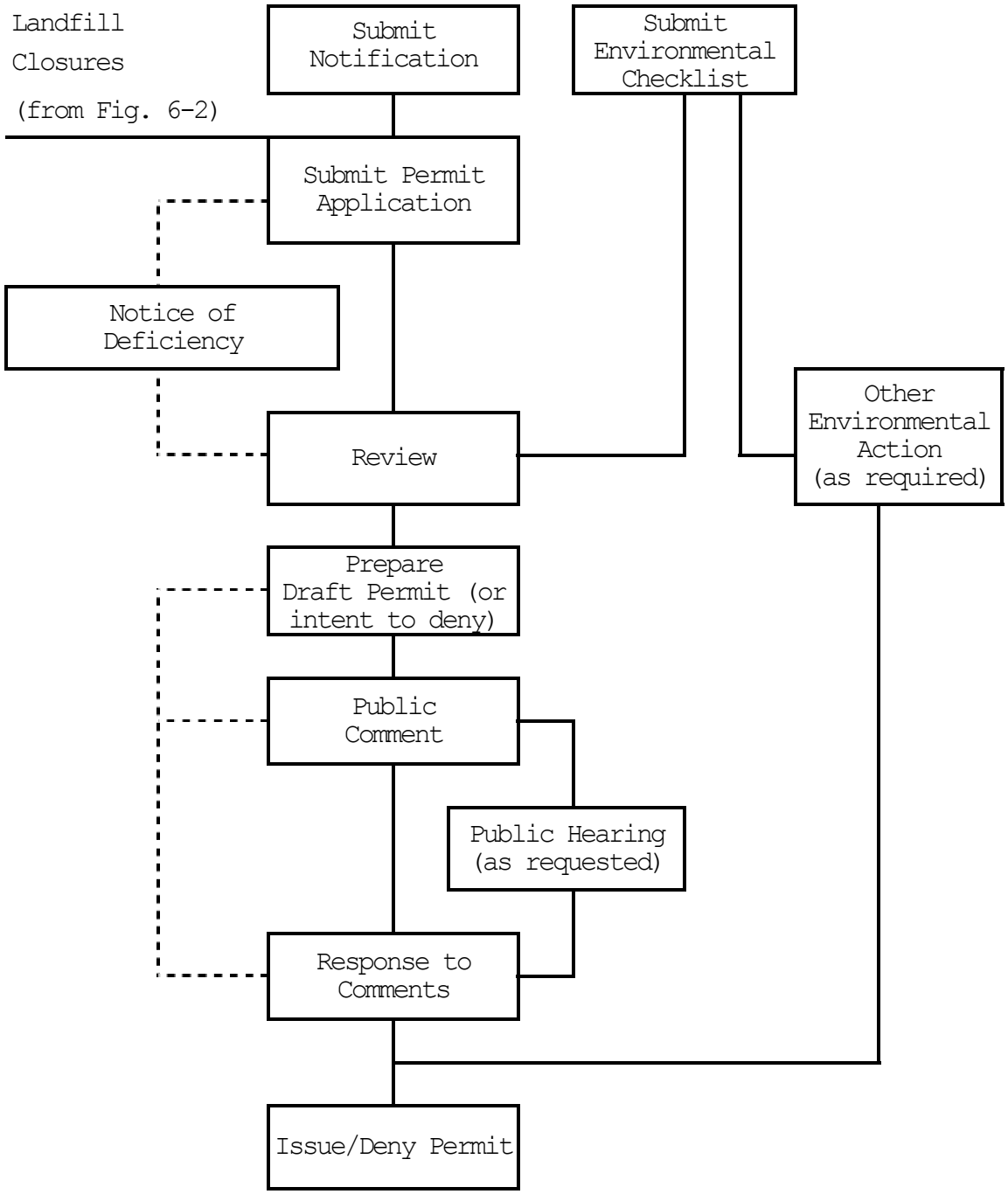


Figure 6-1. Permitting Process Flowchart.

6.3 TREATMENT, STORAGE, AND DISPOSAL CLOSURE PROCESS

The DOE will follow applicable Federal and State statutes, regulations and guidance documents, and written policy determinations that pertain to the closure process for TSD groups/units.

The TSD units containing mixed waste will normally be closed with consideration of all hazardous substances, which includes radioactive constituents. Hazardous substances not addressed as part of the TSD closure may be addressed under past-practice authority in accordance with the process defined in Section 7.0.

The following are examples of when a unit may be closed without addressing all hazardous substances (e.g., radioactive waste).

- For treatment or storage units within a radioactive structure [e.g., the Plutonium/Uranium Extraction (PUREX) Plant] it may be possible to remove all hazardous wastes and "clean close" (see Section 6.3.1). The radioactive constituent would then remain for a future decontamination and decommissioning effort of the entire structure.

- For a land disposal unit being closed in conjunction with an operable unit, initial investigation may show that the unit no longer contains hazardous waste or constituents. Therefore, the unit may be "clean closed" with no physical closure action. Any remaining CERCLA-only materials would be addressed as part of the past-practice process as designated for that operable unit.

Figure 6-2 depicts a flowchart of the closure process for TSD units. Two types of closures are shown.

6.3.1 Clean Closure

In some cases, it may be possible to remove all hazardous wastes and constituents associated with a TSD unit and thereby achieve "clean closure." The process to complete clean closure of any unit will be carried out in accordance with all applicable requirements described in 173-303 WAC and 40 CFR 270.1. Any demonstration for clean closure of a disposal unit, or selected treatment or storage units as determined by the lead regulatory agency, must include documentation that groundwater and soils have not been adversely impacted by that TSD group/unit, as described in 173-303-645 WAC.

After completion of clean closure activities, a closed storage unit may be reused for generator accumulation (less than 90 day storage).

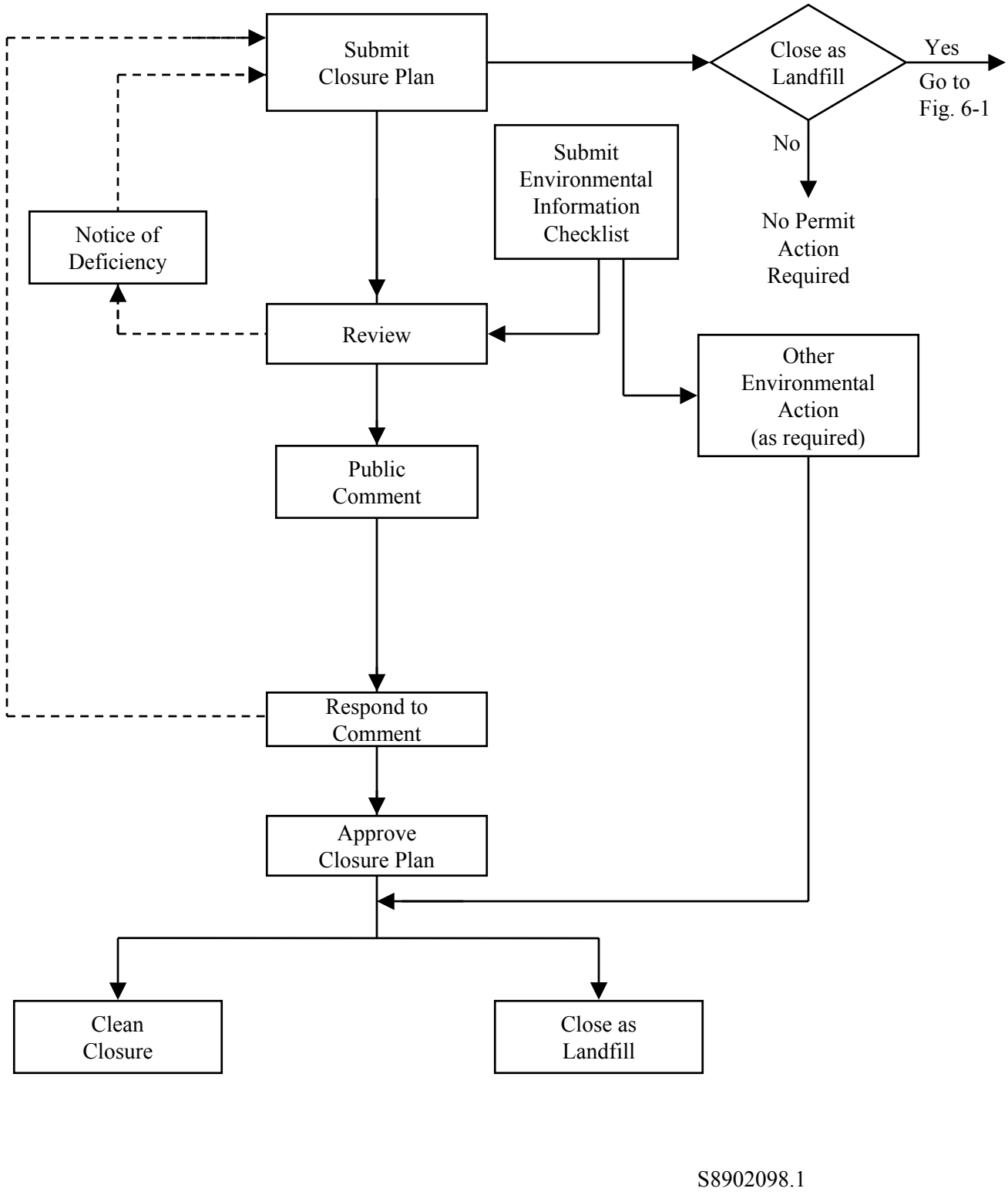


Figure 6-2. Closure Process Flowchart.

6.3.2 Closure as a Land Disposal Unit

If clean closure, as described above, cannot be achieved, the TSD unit will be closed as a land disposal unit. The process to close any unit as a land disposal unit will be carried out in accordance with all applicable requirements described at 173-303 WAC. In order to avoid duplication under CERCLA for mixed waste, the radionuclide component of the waste will be addressed as part of the closure action.

In the case of closure as a land disposal unit, a postclosure permit will be required. The postclosure permit will cover maintenance and inspection activities, groundwater monitoring requirements, and corrective actions, if necessary, that will occur during the postclosure period. The postclosure period will be specified as 30 years from the date of closure certification of each unit, but can be shortened or lengthened by Ecology at any time in accordance with 173-303-610 WAC. The closure plan will be submitted in conjunction with the Part B postclosure permit application, unless the parties agree otherwise. If a unit is to be closed as a land disposal unit prior to issuance of a permit for postclosure, an interim status postclosure plan will accompany the closure plan.

6.3.3 Procedural Closure

This is used for those units which were classified as being TSD units, but were never actually used to treat, store, or dispose of hazardous waste, including mixed waste, except as provided by 173-303-200 WAC or 173-303-802 WAC. This action requires that Ecology be notified in writing that the unit never handled hazardous wastes. Such information must include a signed certification from the DOE, using wording specified in 173-303-810(13) WAC. Ecology will review the information as appropriate (usually to include an inspection of the unit) and send a written concurrence or denial to the DOE. If denied, permitting and/or closure action would then proceed, or the dispute resolution process would be invoked.

6.3.4 Expansion of Hanford Facility Waste Management Capacity Due to the Discontinuation of Process Operations

Many Hanford Site operations include systems that use chemical materials and/or solutions to perform required functions. When these systems are permanently removed from service, the chemical materials and/or solutions that no longer have a use may be considered a waste subject to the provisions of the dangerous waste regulations. For those systems that contain chemical materials and/or solutions that are considered waste, the components of the systems that contain this waste become subject to the Resource Conservation and Recovery Act (RCRA) permitting requirements of the Washington Administrative Code (WAC) 173-303 if the waste is managed for greater than 90 days. For facilities that have received a shut-down notice (facilities being transitioned), these system components (e.g., tanks and ancillary equipment) may be added to the Hanford Facility RCRA Dangerous Waste Part A Permit without providing notification required by WAC 173-303-281, provided that these components have no further waste management mission prior to RCRA closure or deactivation as addressed in Section 8.0.

6.4 RESPONSE TO IMMINENT AND SUBSTANTIAL ENDANGERMENT CASES

The State of Washington Dangerous Waste Regulations, 173-303-960 WAC, addresses actions to abate an imminent and substantial endangerment to the health or the environment from the releases of dangerous or solid wastes. Ecology will require DOE to either take specific action to abate an identified danger or threat, or will require a specific submittal date for DOE to propose an abatement method.

See Section 7.2.3 for information concerning responses to imminent and substantial endangerment cases at past-practice sites.

6.5 QUALITY ASSURANCE

The level of quality assurance and quality control (QA/QC) for the collection, preservation, transportation, and analysis of each sample which is required for implementation of this Agreement shall be dependent upon the data quality objectives for the sample. Such data quality objectives shall be specified in RCRA closure plans, the RCRA permit, and any other relevant plans that may be used to describe sampling and analyses at RCRA TSD units.

The QA/QC requirements shall range from those necessary for non-laboratory field screening activities to those necessary to support a comprehensive laboratory analysis that will be used in final decision-making.

Based upon the data quality objectives, the DOE shall conduct QA/QC and sampling and analysis activities which are taken to implement the Agreement in accordance with the following EPA documents.

- "Guidance for the Data Quality Objectives Process" (EPA/600/R-96/055)(QA/G-4) 2000 as revised,

- "EPA Requirements for Quality Assurance Project Plans" (EPA/240/B-01/003)(EPA QA/R-5), March 2001 as revised, and

- "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods" (EPA/SW-846 as amended).

In some instances, RCRA TSD units are included in operable units and are scheduled for investigation and closure. DOE shall follow the provisions of this Section for QA/QC for sampling and analysis activities at these land disposal units.

For analytical chemistry and radiological laboratories, DOE shall submit laboratory QA/QC plans to the lead regulatory agency for review as secondary documents prior to use of that laboratory. In the event that DOE fails to demonstrate to the lead regulatory agency that data generated pursuant to this Agreement was obtained in accordance with the QA/QC requirements of this section, including laboratory QA/QC plans, DOE shall repeat sampling or analysis as required by the lead regulatory agency. Such action by the lead regulatory agency shall not preclude any other action which may be taken pursuant to this Agreement. For other data, the lead regulatory agency may request DOE to provide QA/QC documentation. Any such data that does not meet

the QA/QC standard required by this section shall be clearly flagged and noted to indicate this fact.

7.0 PAST PRACTICES PROCESSES

7.1 INTRODUCTION

This section has the following five purposes.

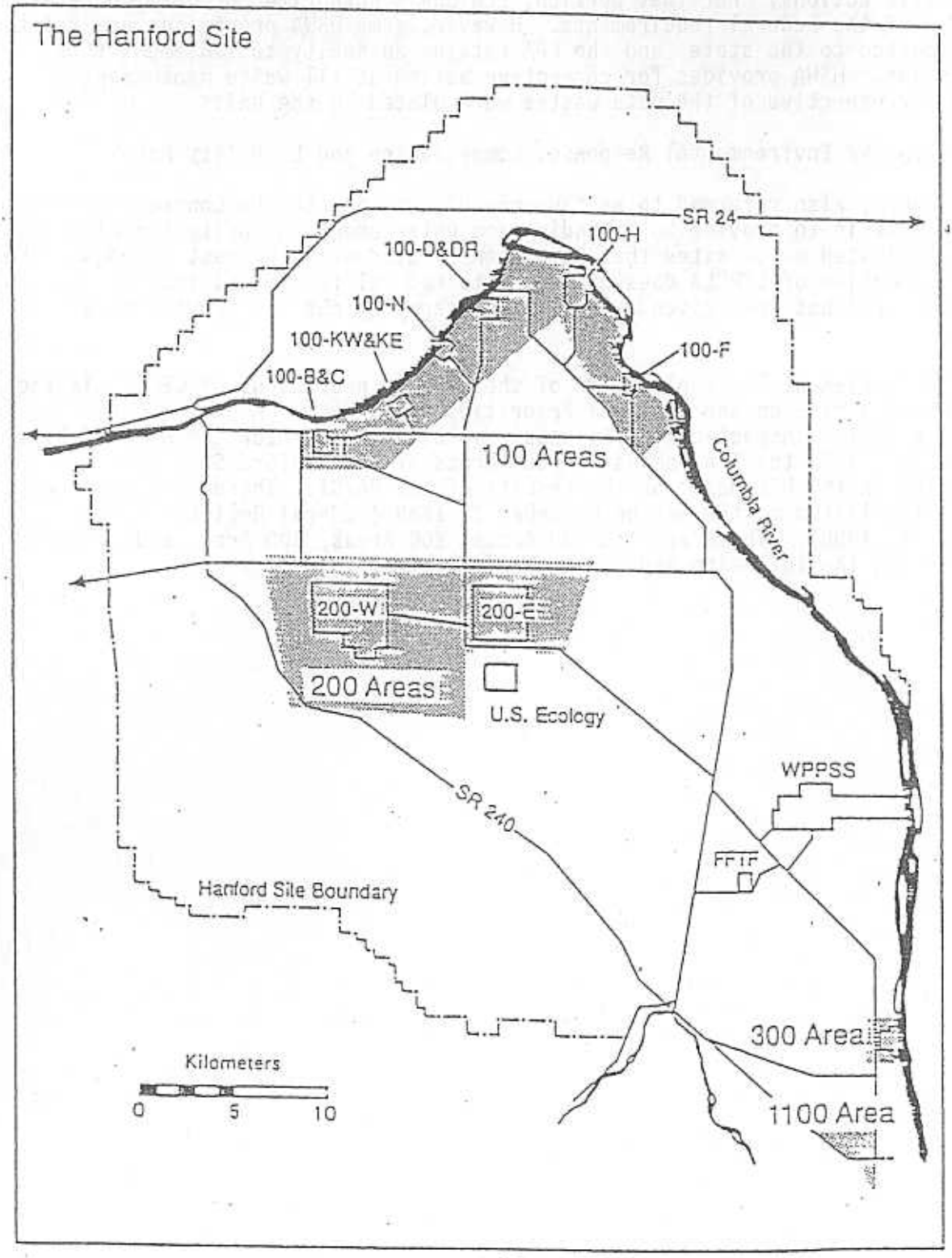
- Describe the processes that are common to both CPP units and RPP units (Section 7.2).
- Describe the steps to be followed if the past-practice units at a given operable unit are to be managed through the CERCLA process (Section 7.3).
- Describe the steps to be followed if the past-practice units at a given operable unit are to be managed through the RPP unit process (Section 7.4).
- Describe the process for setting cleanup standards for any CPP or RPP remedial action (Section 7.5).
- Describe the role of other Federal agencies in the investigation and remedial action processes (Sections 7.6 and 7.7).

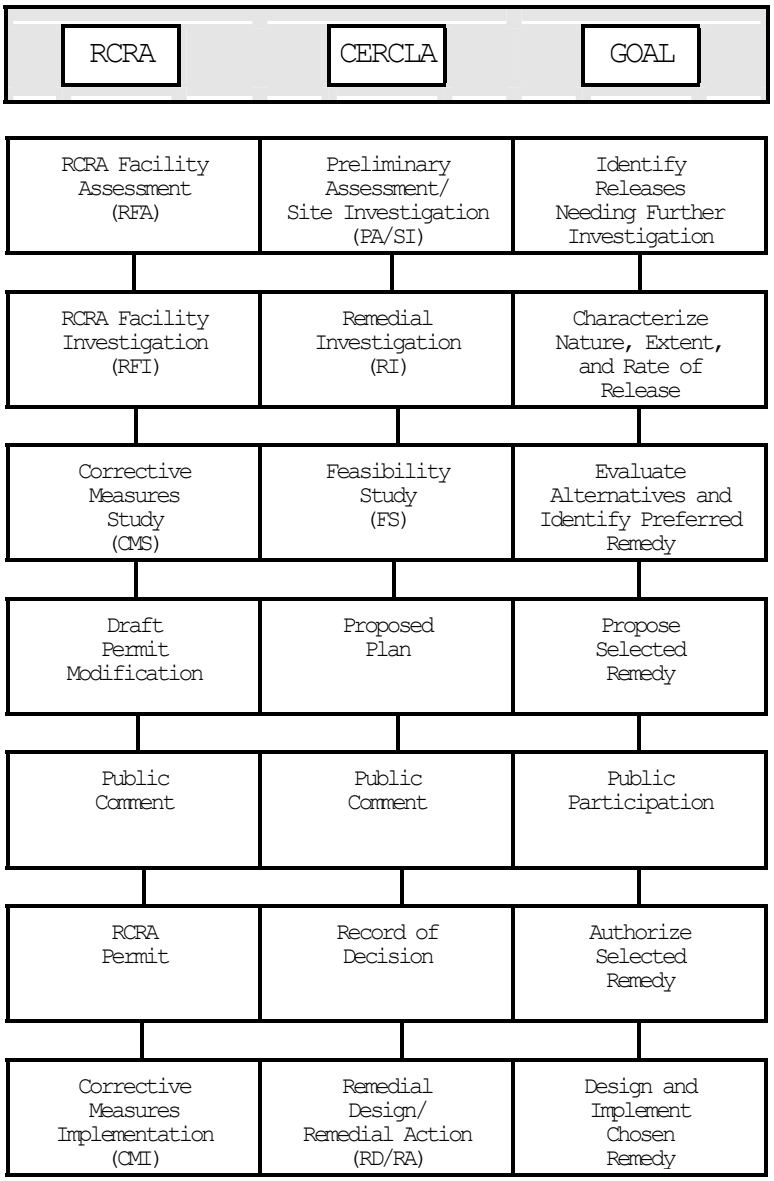
Approximately 1,200 waste management units have been identified within the boundaries of the 560-square mile Hanford Site. This includes approximately 1,000 past-practice units. Most past-practice units are located in two general geographic areas as identified by the DOE (the 100 and 200 Areas). Other past-practice units are located in the 300, 1100 and other areas of the Hanford Site.

The 100, 200, 300, and 1100 Areas were identified as aggregate areas for inclusion of the Hanford Site on the CERCLA NPL. Figure 7-1 reflects these geographic areas at the Hanford Site. Each of these areas has a unique environmental setting and waste disposal history. The four aggregate areas were proposed for inclusion on the NPL on June 24, 1988, and were placed on the NPL on November 3, 1989 (Federal Register, October 4, 1989). The remaining past-practice units from other areas have been assigned to operable units within one of the four aggregate areas for the purpose of investigation and subsequent action. Any future units that may be identified will also be assigned to operable units within an aggregate area.

Cleanup of past-practice units will be conducted pursuant to either the CERCLA process (Section 7.3) or RCRA process (Section 7.4). Figure 7-2 highlights the major steps involved in both the CPP and RPP programs and indicates how each of these steps is related to a comparable step in the other program. It shows that the steps of CERCLA are functionally equivalent to steps in the RPP program. Accordingly, the investigative process at any operable unit can proceed under either the CPP or the RPP program.

In accordance with Section 3.1, and discussed in Section 8.3, the parties may elect to include the disposition of facilities under the past-practices processes. Such actions can proceed under either the CPP or the RPP Program.


The Hanford Site
SR 24
100-H
100-D&DR
100-N
100-KW&KE
100-F
100-B&C
100 Areas
Columbia River
200-W
200-E
200 Areas
U.S. Ecology
WPPSS
SR 240
FFTF
Hanford Site Boundary
300 Area
1100 Area
Kilometers
0
5
10



CERCLA = Comprehensive Environmental Response, Compensation, and Liability Act

RCRA = Resource Conservation and Recovery Act

Note: Interim response actions or interim measures can be performed at any point in the remedial action/corrective measure process.

Figure 7-2. Comparison of Resource Conservation and Recovery Act Corrective Measure and Comprehensive Environmental Response, Compensation, and Liability Act Remedial Action Processes.

7.2 PRELIMINARY PROCESSES

Section 5.4 describes the rationale for managing operable units under either the CPP or the RPP category. The following processes apply to all past-practice units, regardless of whether they are classified as RPP or CPP units.

7.2.1 Site-wide Scoping Activity

An ongoing scoping activity will be conducted on a site-wide basis to maintain a current listing of operable unit boundaries and priorities. The vehicle for documentation of this activity will be the Waste Information Data System (WIDS). The WIDS, as described in Section 3.5, and Appendix C of this Action Plan will be updated as additional information becomes available.

Although initial operable unit boundaries have been identified (Appendix C), the site-wide scoping activity may reveal additional or new information that could impact the designation of individual units within operable units or the priority in which operable units will be managed. Any such changes will require the written concurrence of the assigned executive managers for the DOE and the affected lead regulatory agency. If both EPA and Ecology are affected by this action, the written concurrence of both agencies will be required in accordance with the modification procedures described in Section 12.2.

The site-wide scoping activities will not impact the schedule of any other activities that are shown on the work schedule (Appendix D).

7.2.2 Operable Unit Scoping Activity

The operable unit scoping activity will be used to support the initial planning phase for each RI/FS (or RFI/CMS). Such activity and planning will result in an overall management strategy for each operable unit. In some cases, the operable unit management strategy may include facility dispositioning activities which will be integrated with this process as discussed under Section 8.3, "Decommissioning Process Planning." The DOE shall assemble and evaluate existing data and information about the individual waste management units within each operable unit. The data and information obtained during each operable unit scoping activity will be used to support the logic for the RI/FS (or RFI/CMS) work plan and, therefore, will be submitted as part of each work plan.

This scoping activity is not intended to be a mechanism for generation of new information except for site survey and screening activities described in Section 7.3.2, but a thorough and complete evaluation of existing data. The schedule for submittal of the work plans, as specified in the work schedule (Appendix D), allows time for inclusion of the scoping activity.

The following is a list of specific scoping activities that will be addressed in each RI/FS (RFI/CMS) work plan:

- Assessment of whether interim response actions (IRA) or interim measures (IM) may be necessary. Such assessments will be documented as part of the work plan and may result in IRA or IM proposals

- Assessment of available data and identification of additional data needs
- Identification of potential ARARs (see Section 7.5)
- Identification of potential remedial responses.

7.2.3 Response to Imminent and Substantial Endangerment Cases

In the event that a situation is determined by the lead regulatory agency to represent an imminent and substantial endangerment to the public health or welfare or the environment because of an actual or threatened release of a hazardous substance or hazardous waste or solid waste at an operable unit, the lead regulatory agency may require the DOE to immediately initiate activities to abate the danger or threat. CERCLA, RCRA and the HWMA all include provisions to quickly respond to such situations. If the operable unit is being managed under the CPP procedures, abatement in accordance with Section 106 of CERCLA and the applicable sections of the National Contingency Plan (NCP) (40 CFR Part 300) is preferred. If the operable unit is being managed under the RPP procedures, abatement under the provisions of the HWMA will be preferred. If the operable unit has not yet been assigned to either the CPP or RPP process, the EPA and Ecology will jointly choose an authority to address the imminent and substantial endangerment and will assign a lead regulatory agency to oversee DOE's efforts in completing the project.

The DOE may voluntarily submit a proposed method for abatement to the lead regulatory agency at any time. In cases involving a proposed method for abatement, the lead regulatory agency must approve the DOE's proposal prior to initiation of field work. The final selection of remedy for an abatement action shall be consistent, to the extent practicable, with the final selection of remedial action (for CPP units) or corrective measures (for RPP units) anticipated for the unit(s).

To expedite the cleanup process, neither the specified abatement method nor the proposal for abatement will be subject to the public comment process, except as required by law. However, the public will be kept informed of the status of the abatement process through other means as described in Section 10.0. After completion of all required abatement activity, the routine RI/FS or RFI/CMS process will be implemented, or continued, in accordance with the work schedule (Appendix D). The procedures specified in Section 7.3 or 7.4, respectively, will be followed.

7.2.4 Interim Response Action and Interim Measure Processes

If data or information acquired at any time indicate that an expedited response is needed or appropriate because of an actual or threatened release from a past-practice unit, the lead regulatory agency may require the DOE to submit a proposal for an expedited response at that unit. In addition, the DOE may submit such a proposal at any time, without request from the lead regulatory agency.

Both CERCLA and RCRA include provisions for expedited responses. These expedited responses will be reserved for situations in which an expedited response is determined to be warranted by the lead regulatory agency, which for purposes of this section includes both interim response action and interim measures. An IRA refers to the CERCLA process and an IM refers to the RCRA process. The IRA or IM process will be used in cases where early remediation will prevent the potential for an imminent and substantial endangerment or an imminent hazard to develop. It may also be used in cases where a single unit within an operable unit is a high priority for action, but the overall priority for the operable unit is low. In this way, a specific unit or release at an operable unit can be addressed on an expedited schedule, when warranted.

In addition to the CERCLA and RCRA authorities, Section 2 of Executive Order 12580, dated January 29, 1987, allows the DOE to implement removal actions in circumstances other than emergencies. To the extent that a removal action taken by the DOE under Executive Order 12580 could be inconsistent with the CERCLA or RCRA processes, or if such action could alter the schedules as set forth in Appendix D, the concurrence of DOE and the lead regulatory agency shall be required prior to initiation of field work in accordance with the modification procedures described in Section 12.0.

If the operable unit is being managed under the CPP procedures, an IRA proposal shall be submitted by the DOE to the lead regulatory agency, and the IRA shall be conducted in accordance with 40 CFR Part 300 Subpart E. If the operable unit is being managed under the RPP procedures, the IM proposal shall be submitted to the lead regulatory agency, and the IM shall be conducted in accordance with applicable regulations. If the operable unit has not yet been assigned to either the CPP or RPP process, the EPA and Ecology will jointly choose an authority to address the expedited response.

Any proposal for an IRA or an IM must be approved by the lead regulatory agency prior to initiation of field work. The selection of remedy for an IRA or an IM shall be consistent, to the extent practicable, with anticipated alternatives for final selection of remedial action (for CPP units) or corrective measures (for RPP units).

Public comment on the IRA proposal, as well as other public participation opportunities, will be provided as described in Section 10.0.

7.3 COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, AND LIABILITY ACT PAST-PRACTICE UNIT PROCESS

The purpose of this subsection is to provide an overview of the CPP unit process to be used at the Hanford Site to initiate effective, timely, and environmentally sound cleanup of operable units handled under CERCLA. This includes a description of the RI/FS process, followed by a short discussion of the remedial design (RD), remedial action (RA), and operation and maintenance (O&M) phases.

7.3.1 Preliminary Assessment/Site Inspection

The Preliminary Assessment/Site Inspection (PA/SI) is used as an initial screening step to determine whether a site should be nominated for the CERCLA NPL. For the Hanford Site, the information necessary to make that determination was provided to the EPA in 1987 by the DOE. The EPA determined that this information was functionally equivalent to a PA/SI. Based on that information, the Hanford Site was ranked and then nominated for inclusion on the NPL on June 24, 1988 (Federal Register Vol. 53, No. 122, p. 23988). The four aggregate areas of the Hanford Site were officially placed on the NPL effective November 3, 1989 (Federal Register Vol. 54, No. 191, p. 41015). Therefore, there is no need to continue a PA/SI activity for the Hanford Site. Efforts will proceed directly to the scoping activities previously discussed and the RI/FS process. Figure 7-3 shows the normal sequence of events that occur during the RI/FS process.

7.3.2 Remedial Investigation/Feasibility Study Work Plan for Each Operable Unit

The RI/FS work plan is a primary document, as described in Section 9.0. The lead regulatory agency will provide comments on each RI/FS work plan that is submitted by the DOE. The lead regulatory agency will require the DOE to make appropriate changes to the RI/FS work plan and will approve the work plan. At that time, the work schedule (Appendix D) may need to be modified to accurately reflect the RI/FS work plan schedule. Such modification will be made in accordance with the procedures described in Section 12.0. At that time, the lead regulatory agency will publish the RI/FS schedule, in accordance with CERCLA Section 120(e)(1) and as specified in Article XVII of the Agreement. As additional information becomes available during the RI/FS process, the RI/FS work plan may be revised.

The RI/FS work plan will include or reference seven interrelated components as they pertain specifically to RI/FS activities at any given operable unit. These components, prepared in accordance with current EPA guidance documents, include the following:

- Technology
- Quality assurance/quality control
- Project management
- Sampling and analysis
- Data management
- Health and safety
- Community relations.

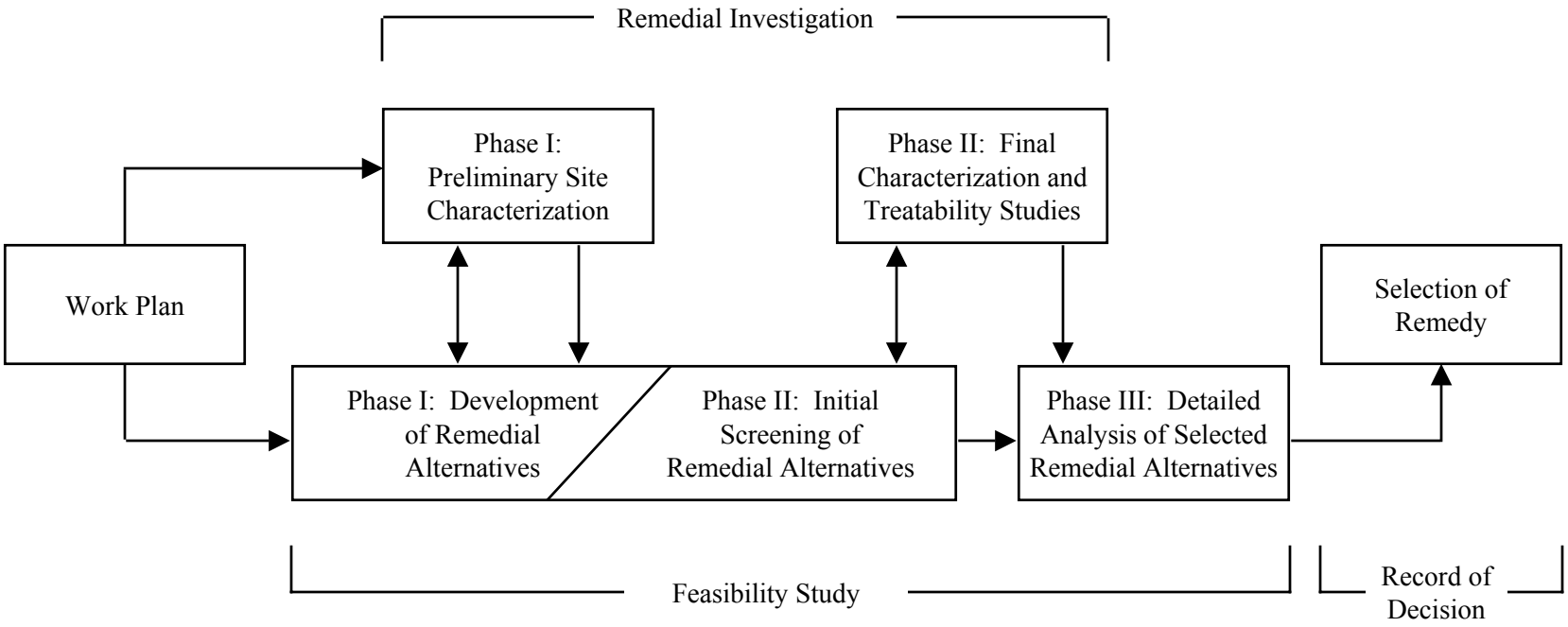


Figure 7-3. Overview of the Remedial Investigation/Feasibility Study Process.

Every effort will be made to standardize these across RI/FS work plans to minimize the time and resources required for preparation and review. The community relations component will be prepared and issued as a separate formal plan as described in Section 10.0 and will then be referenced in each RI/FS work plan.

The following site survey and screening activities may precede submittal of the RI/FS work plan, and are a continuation of the operable unit scoping activity described in Section 7.2.2:

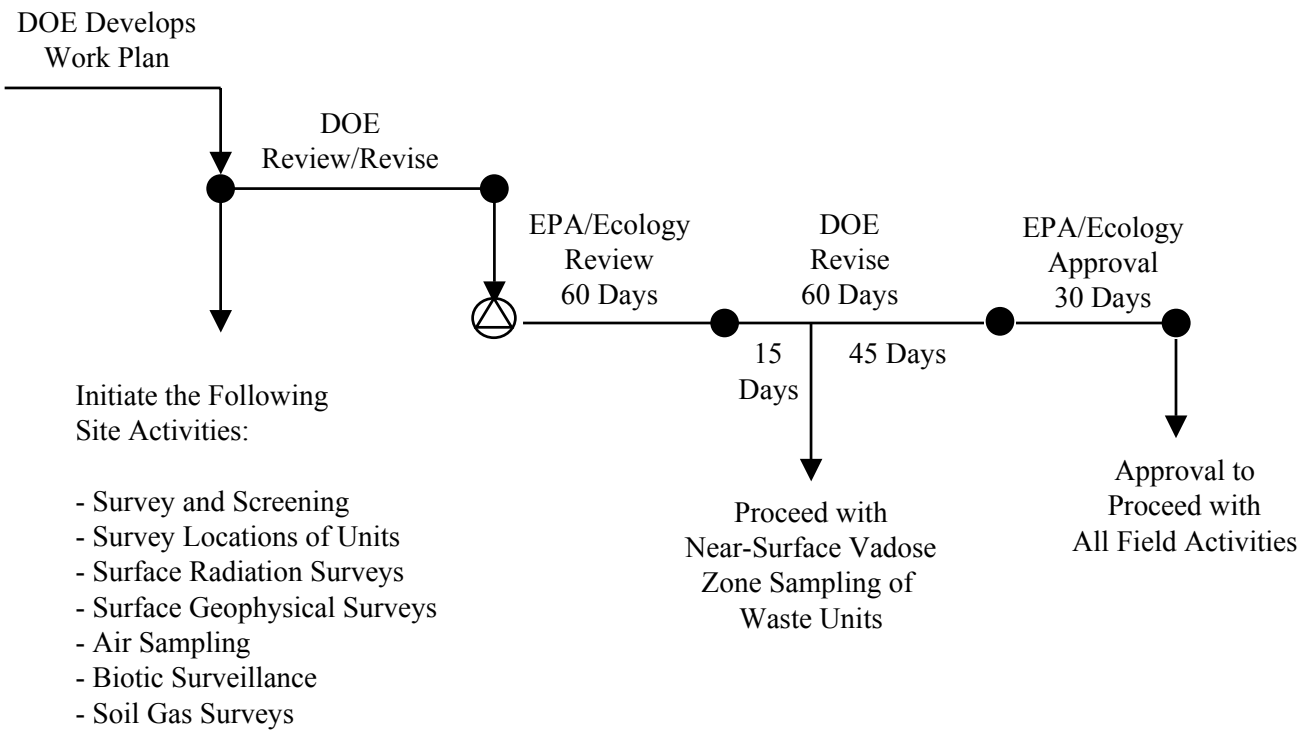
- Survey location of sites
- Surface radiation
- Surface geophysical surveys
- Air sampling
- Soil gas surveys
- Biotic surveillance.

This will allow for a quicker start of characterization activities upon approval of the RI/FS work plan. The results of the site survey and screening activities will be factored into the work plan, as appropriate, during the review and approval process. In addition, to further expedite the process, near-surface vadose zone sampling activities may commence after 2 weeks following the receipt of comments from the lead regulatory agency on the initial draft of the RI/FS work plan if comments from the lead regulatory agency regarding vadose zone sampling have been resolved. Figure 7-4 depicts the normal review and approval cycle for primary documents (see Section 9.0) as applied to the RI/FS work plans. Figure 7-4 also applies to RFI/CMS work plans, which are discussed in Section 7.4.2.

7.3.3 Remedial Investigation--Phase I

The first phase of the remedial investigation (RI) will focus on defining the nature and extent of contamination through field sampling and laboratory analysis. This will include characterization of waste types, migration routes, volume, and concentration ranges. This information will be used to further develop cleanup requirements.

The DOE will initiate those activities necessary to characterize and assess risks, routes of exposure, fate and transport of contaminants, and potential receptors. It is anticipated that because of the limited data available during this phase to adequately assess risks, including environmental pathways and expected exposure levels, this analysis will be further developed during the feasibility studies (FS).



DOE = U.S. Department of Energy
Ecology = State of Washington Department of Ecology
EPA = U.S. Environmental Protection Agency

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Figure 7-4. Remedial Investigation/Feasibility Study (Resource Conservation and Recovery Act Facility Investigation/Corrective Measures Study) Work Plan Review and Approval.

In some cases, treatability investigations at an operable unit will involve minimal activity. In other cases, treatability investigations at a previously investigated operable unit may be used at other operable units whenever warranted by site-specific conditions. When these situations exist, it is possible to expedite the RI/FS process by combining the RI Phase I activity with the RI Phase II activity. Any decision to combine the RI Phases I and II must be agreed to in writing by the lead regulatory agency, in accordance with the procedures described in Section 12.0, unless it was agreed to during the initial approval of the RI/FS work plan.

The actual schedule for conducting the RI Phase I will be specified for each operable unit in the work schedule (Appendix D). The RI Phase I report is a secondary document, as described in Section 9.0. In cases where the RI Phases I and II have been combined, a RI Phases I and II report shall be prepared by the DOE and submitted to the lead regulatory agency as a primary document, as described in Section 9.0.

7.3.4 Feasibility Study--Phase I

The FS Phase I will be conducted by the DOE for the purpose of developing an array of alternatives to be considered for each operable unit. The DOE will develop the alternatives for remediation by assembling combinations of technologies, and the media to which the technologies could be applied, into alternatives. The alternatives will address all contamination at each operable unit.

The FS Phase I process will begin during the RI Phase I process when sufficient data are available. Such data will consist of analytical data obtained during the RI, as well as historical information regarding waste management units at the operable unit.

Because of the direct relationship between FS Phase I (development of alternatives) and FS Phase II (screening of alternatives--Section 7.3.5), the two phases will be conducted concurrently. This approach should save several months in the RI/FS process, without sacrificing quality of work. Since Phases I and II of the FS will be finished at the same time, the information from both phases will be submitted to the lead regulatory agency in a single FS Phases I and II report.

7.3.5 Feasibility Study--Phase II

The FS Phase II will be a screening step to reduce the number of treatment alternatives for further analysis while reserving a range of options. Screening will be accomplished by considering the alternatives based on effectiveness, implementability, and cost factors. Cost may be used as a factor when comparing alternatives that achieve acceptable standards of performance.

Innovative technologies will be carried through the screening process if they offer the potential for better treatment performance or implementability, fewer or less adverse impacts than other available technologies, or lower costs than demonstrated technologies with comparable environmental results.

As stated in Section 7.3.4, Phases I and II of the FS will be conducted concurrently. Therefore, the FS Phase II will begin as soon as sufficient

data from the RI Phase I is obtained. The actual schedule for conducting the FS Phases I and II will be specified for each operable unit in the work schedule (Appendix D). The FS Phases I and II report, is a primary document as described in Section 9.0.

7.3.6 Remedial Investigation--Phase II

This second phase of the RI will focus on collecting data sufficient to substantiate a decision for remedy selection. A supplemental work plan to the RI/FS work plan will be prepared to cover the RI Phase II activities. This work plan will be placed in the Public Information Repositories. After a literature search is conducted to consider the applicability of various remediation alternatives, treatability investigations may be performed for particular technologies. Additional field data will be collected as needed to further assess alternatives. Treatability investigation work plans will be submitted by DOE to the lead regulatory agency when the investigation is related to a specific operable unit per the RI/FS work plan. All treatability investigation work plans shall be assigned to an operable unit for which a lead regulatory agency has been identified. The lead regulatory agency shall determine on a case-by-case basis whether a treatability investigation work plan is a primary document or a secondary document (see Section 9.1) during development of the applicable RI/FS (or RFI/CMS) work plan.

Upon completion of the treatability investigation, DOE shall submit a treatability investigation report to the lead regulatory agency, documenting the findings of the investigation and applicability to the remedial action project. The treatability investigation report is a secondary document (see Section 9.1).

The actual schedule for conducting the RI Phase II will be specified for each operable unit in the work schedule (Appendix D). The RI Phase II report is a primary document as described in Section 9.0. Where the RI Phase I and Phase II activities have been combined (see Section 7.3.3), the resulting RI Phases I and II report would also be a primary document.

7.3.7 Feasibility Study--Phase III and Proposed Plan

The treatment alternatives passing through the initial screening phases will be analyzed in further detail against a range of factors and compared to one another during the FS Phase III. This final screening process will begin once the FS Phases I and II report is approved by the lead regulatory agency.

The determination for the preferred alternative will be made based on the following general criteria:

- Does the alternative protect human health and the environment and attain ARARs
- Does the alternative significantly and permanently reduce the toxicity, mobility, and volume of hazardous constituents
- Is the alternative technically feasible and reliable.

In addition, the costs of construction and the long-term costs of operation and maintenance will be considered.

The actual schedule for conducting the FS Phase III will be specified for each operable unit in the work schedule (Appendix D) and integrate any planned facility dispositioning per paragraph 8.3. A FS Phase III report will be prepared by the DOE documenting the results of the RI/FS. The FS Phase III report is a primary document as described in Section 9.0.

With consideration of all information generated through the RI/FS process, the DOE shall prepare a proposed plan. This proposed plan is required by CERCLA Section 117(a). The proposed plan must describe an analysis of the feasible alternatives and clearly state why the proposed remedy is the most appropriate for the operable unit, based on written EPA guidance and criteria. Once the lead regulatory agency has concurred on the proposed plan, and the FS Phase III report, the documents will be made available for public review and comment in accordance with the procedures described in Section 10.0. Public review of the proposed plan will provide opportunity for consideration of two additional criteria in preparation of the record of decision. These criteria are State and community preference or concerns about the proposed alternatives.

7.3.8 Record of Decision

After the public comment period on the FS Phase III report and the proposed plan has closed, the record of decision (ROD) process will begin. The ROD will be prepared by the lead regulatory agency and will describe the decision making process for remedy selection, and summarize the alternatives developed, screened, and evaluated in accordance with CERCLA and the NCP. The lead regulatory agency is responsible for reviewing the comments received and will prepare a responsiveness summary that will accompany the ROD. Although all of the RI/FS and preliminary determinations through the process of drafting the ROD will be the responsibility of the lead regulatory agency for a given operable unit, the ROD must be signed by the EPA. The ROD will become part of the administrative record for each operable unit. The lead regulatory agency shall continue its role after issuance of the ROD, including oversight of the remedial design and remedial action phases, as described below.

7.3.9 Remedial Design Phase

Following issuance of the ROD, the remedial design (RD) phase will be initiated in accordance with a schedule agreed to by the project managers. Milestone change requests shall be processed in accordance with Section 12.0. Since any necessary treatability investigations have been performed during the RI Phase II, no additional investigations will be necessary, unless required by the lead regulatory agency. A number of items will be completed during the RD phase, including but not limited to the following:

- Completion of design drawings
- Specification of materials of construction
- Specification of construction procedures
- Specification of all constraints and requirements (e.g., legal)
- Development of construction budget estimate

- Preparation of all necessary and supporting documents.

An RD report will be prepared that includes the designs and schedules for construction of any remediation facility and development of support facilities (lab services, etc.). The RD report is a primary document as described in Section 9.0. The schedule for conducting the RD phase will be specified for each operable unit in the work schedule (Appendix D).

7.3.10 Remedial Action Phase

The remedial action (RA) phase will be initiated in accordance with a schedule agreed to by the project managers. Milestone change requests shall be processed in accordance with Section 12.0. The RA phase is the implementation of the detailed actions developed under the RD. The RA will include construction of any support facility, as specified in the RD report, as well as operation of the facility to effect the selected RA at that operable unit.

An RA work plan will be developed for each operable unit detailing the plans for RA. The RA work plan is a primary document as described in Section 9.0. The schedule for conducting the RA phase will be specified for each operable unit in the work schedule (Appendix D).

Upon satisfactory completion of the RA phase for a given operable unit, the lead regulatory agency shall issue a certificate of completion to the DOE for that operable unit. At the discretion of the lead regulatory agency, a certificate of completion may be issued for completion of a portion of the RA phase for an operable unit.

7.3.11 Operation and Maintenance

The operation and maintenance (O&M) phase will be initiated at each operable unit when the RA phase has been completed. This phase will include inspections and monitoring as described in the O&M plan. In all cases where waste or contamination is left in place as part of the RA, the O&M phase is expected to be a long-term activity. Where waste or contamination is left in place, the operable unit will be evaluated by the lead regulatory agency at least every 5 years during the O&M phase to determine whether continued O&M activity is indicated or further RA is required. The lead regulatory agency may conduct more frequent evaluations should data indicate this is necessary to ensure effective implementation of the RA. All O&M data and records obtained to that date, along with any additional information provided by the DOE, will be used in that evaluation.

In cases where all waste or contamination is removed or destroyed, a short period for the O&M phase for specific units within an operable unit may be specified by the lead regulatory agency. The lead regulatory agency may, where appropriate, allow for the O&M phase to be terminated for certain units within an operable unit while requiring O&M to be continued at other units. In these cases, certain units may be considered for delisting in accordance with the NCP, after the O&M phase has been completed.

The O&M plan is a primary document as described in Section 9.0. The schedule for conducting significant steps described in the O&M plan are specified for each operable unit in the work schedule (Appendix D).

7.4 RESOURCE CONSERVATION AND RECOVERY ACT PAST-PRACTICE UNIT PROCESS

The RPP processes are the subject of this Section and are governed by the authorized state corrective action program.

7.4.1 Resource Conservation and Recovery Act Facility Assessment

For those units that are defined as RPP units, (see definition in Section 7.1), the lead regulatory agency for an operable unit may require the DOE to conduct a RCRA facility assessment (RFA) of all or some of the RPP units within that operable unit. The need for an RFA is based on whether sufficient knowledge exists to determine if an RFI is required. Based on the results of the RFA, the lead regulatory agency may require additional information from the DOE, or it may determine that no further investigation or corrective action is required for any of the RPP units within the operable unit. The project manager for the lead regulatory agency for that operable unit may direct the DOE to conduct a RFI based on results of the RFA.

The RFA will be developed in accordance with current applicable regulations, guidance documents, and written policy available at the time the RFA is begun. An RFA report will be prepared documenting the results of the RFA. The RFA report is a primary document as described in Section 9.0. If the lead regulatory agency determines that further investigation is necessary, the project manager for the lead regulatory agency will direct the DOE to prepare an RFI report, as described below.

In some cases, sufficient information may already exist that indicates that further investigation will be required. In these cases the RFA process will be bypassed and effort will be focused on the RFI/CMS. Figure 7-5 shows the normal sequence of events that occur during the RFI/CMS process.

7.4.2 Resource Conservation and Recovery Act Facility Investigation

Each RCRA Facility Investigation (RFI) will address all units within a specific operable unit, as identified in the RFI/CMS work plan. Certain operable units also contain TSD units, primarily land disposal units, that are to be investigated and managed in conjunction with past-practice units. The information necessary for performing RCRA closures within an operable unit will be provided in coordination with various RFI/CMS documents as discussed in Section 5.5. The RFI/CMS work plan will be functionally equivalent to an RI/FS work plan (see Section 7.3.2). Timing for submittal of the work plan will be in accordance with the work schedule (Appendix D).

An RFI report will be prepared by the DOE, and it will document the results of the RFI. The RFI report is a primary document as described in Section 9.0. The schedule for conducting the RFI will be specified for each operable unit in the work schedule (Appendix D) and integrate any planned facility dispositioning in accordance with Section 8.3. The parties agree that the information obtained through the RFI must be functionally equivalent to information gathered in the CERCLA process through the RI Phases I and II, as described in Sections 7.3.3 and 7.3.6.

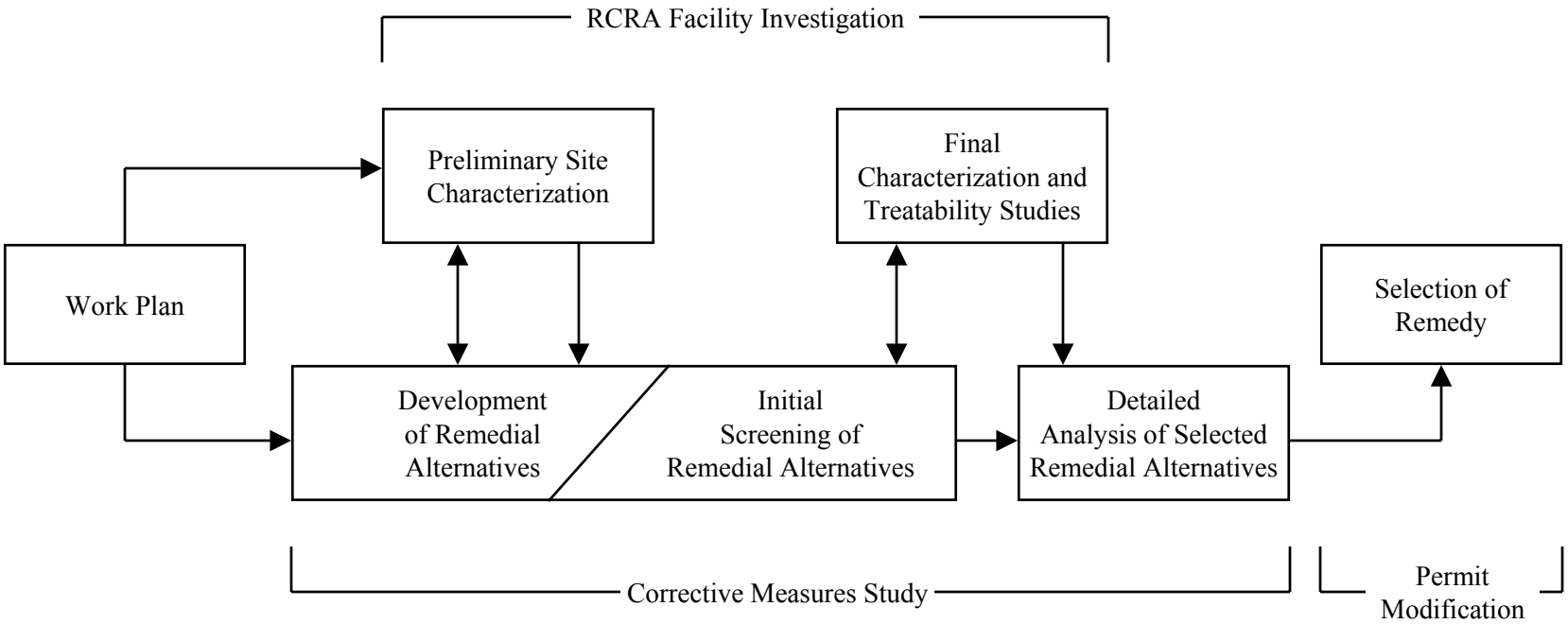

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Figure 7-5. Overview of RCRA Facility Investigation/Corrective Measures Study Process.

Based on the results of the RFI, the lead regulatory agency may determine that no further investigation or corrective action is required for each RPP unit in an operable unit. The project manager from the lead regulatory agency for that operable unit may direct the DOE to conduct a CMS based on results of the RFI.

7.4.3 Corrective Measures Study

A Corrective Measures Study (CMS) shall be prepared by the DOE and will include an identification and development of the corrective measure alternative(s), an evaluation of these alternatives, and a justification for the recommended alternative. The CMS will include development of a cost estimate for each alternative considered.

A CMS report documenting the results of the study will be prepared by the DOE. The CMS report is a primary document as described in Section 9.0. The schedule for conducting the CMS will be specified for each operable unit in the work schedule (Appendix D). The CMS report will become the basis for revision of the RCRA permit through the modification or revocation and reissuance processes described in Section 6.2. The parties agree that the information obtained through the CMS must be functionally equivalent to information gathered in the CERCLA process through the FS Phases I, II, and III as described in Sections 7.3.4, 7.3.5, and 7.3.7.

The lead regulatory agency for the operable unit shall continue its oversight role through the corrective measures implementation (CMI) phase and through any long-term monitoring or maintenance phase that is specified in the CMI work plan.

7.4.4 Corrective Measures Implementation

The DOE will initiate, maintain progress toward completion of, and complete any necessary corrective action for all RPP units within each operable unit in accordance with the CMI work plan. This will be done in accordance with current applicable regulations, guidance documents, and written policy available at any time during the corrective action process. It is agreed by the parties that the content of the CMI work plan will be considered to be functionally equivalent to that of the RA work plan described in Section 7.3.10.

The CMI work plan and the corrective measures design (CMD) report, which are produced as part of the CMI phase, are primary documents as described in Section 9.0. The schedule for developing the CMI work plan and conducting the CMI will be specified for each operable unit in the work schedule (Appendix D). The CMI phase will be conducted in accordance with the schedule of compliance specified in the RCRA permit and the work schedule (Appendix D).

Upon satisfactory completion of the CMI phase as described in the CMI work plan for a given operable unit, the lead regulatory agency shall issue a certificate of completion to the DOE for that operable unit. At the discretion of the lead regulatory agency, a certificate of completion may be issued for completion of a portion of the CMI phase for an operable unit.

7.4.5 Offsite Releases and Corrective Action

In the event that hazardous constituents or contamination from a landfill unit, surface impoundment, or waste pile is found to have migrated beyond the boundaries of the Hanford Site, the lead regulatory agency may require that corrective action for such contamination be conducted. Corrective action authority will be implemented through a schedule of compliance. The DOE shall make every reasonable effort to gain access to investigate and remediate offsite contamination. The DOE will document attempts to attain offsite access for investigative work and corrective action in such cases, in accordance with the access provisions as specified in Article XXXVII of the Agreement. Where necessary to accomplish offsite RA, such releases may be addressed by the lead regulatory agency under CERCLA authority.

The DOE will initiate, maintain progress toward completion of, and complete any offsite corrective action required by the lead regulatory agency, in accordance with the time frames specified in the work schedule (Appendix D) and in accordance with current applicable regulations, guidance documents, and written policy available at any time during the corrective action process.

7.5 CLEANUP REQUIREMENTS

In accordance with Section 121(d) of CERCLA, the DOE will comply with all ARARs when hazardous substances, pollutants, or contaminants are to remain onsite as part of RAs. These requirements include cleanup standards, standards of control, and other substantive environmental protection requirements and criteria for hazardous substances as specified under Federal or State laws and regulations. The parties intend that ARARs, as appropriate, will apply at units being managed under the RPP program at the Hanford Site to ensure continuity between the RCRA and CERCLA authorities.

"Applicable requirements" are those cleanup standards, standards of control, and other substantive environmental protection requirements, criteria, or limitations promulgated under Federal or State law. These requirements specifically address a hazardous substance, pollutant, contaminant, hazardous waste, hazardous constituent, RA, location, or other circumstance at the Hanford Site.

"Relevant and appropriate requirements" are those which do not meet the definition of applicable requirements, yet pertain to problems or situations similar to those encountered in the cleanup effort at the Hanford Site. Such requirements must be suited to the unit under consideration and must be both relevant and appropriate to the situation.

The ARARs are classified into three general categories as follows:

- Ambient or chemical-specific requirements. These are established numeric criteria for various constituents. These criteria are usually set from risk-based or health-based values or methodologies

- Performance, design, or other action-specific requirements. These are usually technology or activity-based requirements or limitations on actions taken with respect to a given hazardous substance or hazardous constituent

- Location-specific requirements. These are restrictions placed on the concentration of hazardous substances or hazardous constituents or on the conduct of activities solely because they occur in special locations.

In addition to ARARs, certain non-promulgated Federal or State criteria, advisories, guidance, and proposed standards may be used to establish cleanup standards. These "to-be-considered" criteria can be imposed if necessary to assure protection of human health and the environment but are not necessarily legally binding. These criteria will be specified by the lead regulatory agency in cases where an ARAR does not exist, or in cases where the lead regulatory agency does not believe the ARAR is protective of human health and the environment given the site specific conditions.

For units which are selected for abatement actions or interim actions, as described in Sections 7.2.3 and 7.2.4, ARARs will be applied, where appropriate, recognizing that these units will later be subject to ARARs during the final remedial or corrective action process.

Compliance with an ARAR may be waived in certain circumstances, as specified in current EPA guidance on cleanup requirements. Waivers will be limited to the following situations:

- Cases in which the remedy selected is only part of a total remedial action that will satisfy the ARAR when completed.

- Cases in which compliance with an ARAR will result in a greater risk to human health and the environment than an alternative option.

- Cases in which compliance with an ARAR is technically impracticable from an engineering perspective.

- Cases in which alternative treatment methods to those specified as ARARs have been shown to result in equivalent standards of performance.

- With respect to a State standard, requirement, criteria, or limitation, the State has not consistently applied procedures to establish a standard, requirement or criteria or demonstrated the intention to consistently apply the standard, requirement, criteria, or limitation in similar circumstances at other RAs.

Federal statutes, regulations, and "to-be-considered" criteria from which cleanup requirements will be developed are included in the current EPA guidance document, "CERCLA Compliance with Other Laws Manual." The following list identifies the key state statutes and regulations from which cleanup requirements will be developed for the Hanford Site. This list is not intended to be inclusive; other standards may be applicable on a case-by-case basis. In addition, this list can be expanded as new State statutes and regulations become effective:

- Washington State Environmental Policy Act--Chapter 43.21C RCW, and implementing regulations;

Guidelines Interpreting and Implementing the State Environmental Policy Act--197-11 WAC

- Water Well Construction Act--Chapter 18.104 RCW, and implementing regulations;

  Minimum Standards for Construction and Maintenance of Water Wells--173-160 WAC

- Washington Clean Air Act--Chapter 70.94 RCW

- Solid Waste Management, Recovery and Recycling Act--Chapter 70.95 RCW, and implementing regulations;

  Minimum Functional Standards for Solid Waste Handling--173-304 WAC

- Nuclear Energy and Radiation Act--Chapter 70.98 RCW, and implementing regulations;

  Standards for Protection Against Radiation--402-24 WAC

  Licensing Requirements for Land Disposal of Radioactive Waste--402-61 WAC

  Monitoring and Enforcement of Air Quality and Emission Standards for Radionuclides--402-80 WAC

- Hazardous Waste Management-Chapter 70.105 RCW, and implementing regulations;

  Dangerous Waste Regulations--173-303 WAC

- Model Toxics Control Act--Chapter 70.105D RCW, and implementing regulations;

  Model Toxics Control Act Cleanup Regulation--173-340 WAC

- Washington State Water Code--Chapter 90.03 RCW

- Regulation of Public Groundwaters--Chapter 90.44 RCW

- Water Pollution Control Act--Chapter 90.48 RCW, and implementing regulations;

  Water Quality Standards for Water of the State of Washington--173-201 WAC

  State Waste Discharge Program--173-216 WAC

  Underground Injection Control Program--173-218 WAC

National Pollution Discharge Elimination System
Permit Program--173-220 WAC

- Water Resources Act of 1971--Chapter 90.54 RCW

- Shoreline Management Act--Chapter 90.58 RCW and implementing regulations, 173-14 through 173-22 WAC

The DOE shall use the Federal and State sources of information, as mentioned above, in developing proposed ARARs during the RI/FS (or RFI/CMS) process. The detailed documentation of ARARs shall be provided in an appendix to the FS Phase III Report (or CMS report).

The lead regulatory agency for each CERCLA operable unit shall prepare a summary of the rationale for selection of ARARs for the ROD. The lead regulatory agency of each RPP operable unit shall prepare a summary of the rationale for selection of the ARARs for the fact sheet that will accompany the CMS report (including permit modification or permit revocation and reissuance, as applicable).

In the event that new standards are developed subsequent to initiation of RA at any operable unit, and these standards result in revised ARARs or "to-be-considered" criteria, these new standards will be considered by the lead regulatory agency as part of the review conducted at least every five years under Section 121(c) of CERCLA.

7.6 NATURAL RESOURCE TRUSTEESHIPS

Section 107 of CERCLA imposes liability for damages for injury to, destruction of, or loss of natural resources. It also provides for the designation of Federal and State trustees, who shall be responsible for, among other things, the assessment of damages for injury to, destruction of, or loss of natural resources. Current regulations concerning such trustees are in the NCP, 40 CFR Part 300, Subpart G.

The DOE shall notify appropriate Federal and State natural resource trustees as required by section 104(b)(2) of CERCLA and Section 2(e)(2) of Executive Order 12580.

In addition to DOE, the relevant Federal trustees for the Hanford Site are the U.S. Department of Commerce and the U.S. Department of the Interior (DOI). Their respective roles are described below.

7.6.1 National Oceanic and Atmospheric Administration

The National Oceanic and Atmospheric Administration (NOAA) acts on behalf of the Secretary of Commerce as a Federal trustee for living and nonliving natural resources in coastal and marine areas. Resources of concern to the NOAA include all life stages, wherever they occur, of fishery resources of the exclusive economic zone and continental shelf and anadromous species throughout their ranges. For resources in coastal waters and anadromous fish streams, the NOAA may be a co-trustee with the DOI, other Federal land management agencies, and the affected States, and Indian Tribes. Chinook,

coho, and sockeye salmon, as well as steelhead trout, are the anadromous species that utilize the Hanford Reach for spawning, rearing, foraging, and as a migratory corridor.

Under an existing interagency agreement with the EPA, the NOAA will provide a Preliminary Natural Resource Survey (PNRS) to the EPA by December 31, 1988, detailing trust species of concern at the four aggregate areas at the Hanford Site (the 100, 200, 300, and 1100 Areas). The NOAA will also provide technical review, at the operable unit level, of RI/FS work plans, RI reports, FS reports, RD reports, and RA work plans, as appropriate. These technical reviews will be done to ensure that potential impacts to anadromous fish in the Hanford Reach are addressed in the CERCLA process. The NOAA will coordinate with other natural resource trustees, as appropriate, to preclude duplication of effort. The DOE will provide the NOAA with a copy of documents listed above at the time of submission to the EPA. The NOAA will provide technical comments to the EPA for incorporation and transmittal to the DOE. Timing for submittal of comments by the NOAA will be consistent with the time frames specified for primary document review in Section 9.2. The PNRS provided by the NOAA and each set of technical comments will become part of the administrative record.

7.6.2 Department of the Interior (DOI)

The DOI responsibilities as a natural resource trustee will be shared by three separate bureaus within the DOI. These bureaus are the U.S. Geological Survey, U.S. Fish and Wildlife Service, and the Bureau of Indian Affairs. Each bureau will prepare a report for DOI based on its respective responsibility as a natural resource trustee. The DOI will consolidate these reports and issue a PNRS. The DOI will coordinate with other natural resource trustees, as appropriate, to preclude duplication of effort. The PNRS conducted by DOI will become part of the administrative record.

The PNRS will be completed under an existing interagency agreement between the DOI and the EPA. If further work beyond the PNRS is undertaken by the DOI, such work will be funded through DOI sources.

7.7 HEALTH ASSESSMENTS

The Agency for Toxic Substances and Disease Registry (ATSDR) is a part of the U.S. Public Health Service, which is under the U.S. Department of Health and Human Services. The ATSDR was created by Congress to help implement the health-related sections of laws that protect the public from hazardous waste and environmental spills of hazardous substances. The CERCLA requires ATSDR to conduct a health assessment within one year following proposal to the NPL for any site proposed after October 17, 1986.

The ATSDR health assessment is the result of the evaluation of data and information on the release of hazardous substances into the environment. Its purpose is to assess any current or future impacts on public health, to develop health advisories or other health recommendations, and to identify studies or actions needed to evaluate and mitigate or prevent adverse human health effects.

The ATSDR will prepare a preliminary health assessment for each of the four Hanford NPL areas (the 100, 200, 300, and 1100 Areas). Since the RI Phase I reports for these areas will not be available within one year following the proposal of Hanford to the NPL, these preliminary health assessments will be based on the best available information.

As additional information becomes available, and as appropriate, ATSDR may, at its discretion, expand these preliminary health assessments into full health assessments adding to the overall characterization of the site, or prepare addenda to the health assessments addressing the public health impact of either individual or a combination of operable units at the site.

The health assessments, including any addenda, will become part of the administrative record.

7.8 QUALITY ASSURANCE

The level of quality assurance and quality control (QA/QC) for the collection, preservation, transportation, and analysis of each sample which is required for implementation of this Agreement shall be dependent upon the data quality objectives for the sample. Such data quality objectives shall be specified in RI/FS or RFI/CMS work plans or in other work plans that may be used to describe sampling and analyses at CERCLA or RCRA past-practice units.

The QA/QC requirements shall range from those necessary for non-laboratory field screening activities to those necessary to support a comprehensive laboratory analysis that will be used in final decision-making.

Based upon the data quality objectives, the DOE shall conduct QA/QC and sampling and analysis activities which are taken to implement the Agreement in accordance with the following EPA documents.

- "Guidance for the Data Quality Objectives Process" (EPA/600/R-96/055 (QA/G-4) 2000 as revised;

- "EPA Requirements for Quality Assurance Project Plans" (EPA/240/B-01/003)(EPA QA/R-5), March 2001 as revised and, "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods" (EPA/SW-846 as amended)

In regard to quality assurance requirements for construction of land disposal facilities, DOE shall comply with "Technical Guidance Document: Construction Quality Assurance for Land Disposal Facilities" (EPA/530-SW-86-031).

For analytical chemistry and radiological laboratories DOE shall submit laboratory QA/QC plans to EPA and Ecology for review as secondary documents prior to use of that laboratory. In the event that DOE fails to demonstrate to the lead regulatory agency that data generated pursuant to this Agreement was obtained in accordance with the QA/QC requirements of this section, including laboratory QA/QC plans, DOE shall repeat sampling or analysis as required by the lead regulatory agency. Such action by the lead regulatory agency shall not preclude any other action which may be taken pursuant to this Agreement. For other data, the lead regulatory agency may request DOE to

provide QA/QC documentation. Any such data that does not meet the QA/QC standards required by this section shall be clearly flagged and noted to indicate this fact.

8.0 FACILITY DECOMMISSIONING PROCESS

8.1 INTRODUCTION

The facility decommissioning process defines the approach by which DOE, with involvement of the lead regulatory agencies, will take a facility from operational status to its end state condition (final disposition) at Hanford. This is accomplished by the completion of facility transition, surveillance and maintenance (S&M), and disposition phase activities. The process is designed to integrate DOE-HQ guidance (U. S. Department of Energy, Office of Environmental Restoration, Decommissioning Handbook, DOE/EM-0142D, March 1994, and U. S. Department of Energy, Office of Environmental Management, Decommissioning Resource Manual, DOE/EM-0246, August, 1995, hereafter referred to as the EM-40 Guidance Documents) and to ensure compliance with environmental regulations, including waste management, closure and post closure requirements under RCRA, and remedial and/or removal action requirements under CERCLA.

Facility decommissioning at Hanford will proceed on a priority-based path that results in an expedient and cost efficient transition of facilities to a safe and stable condition that presents no significant threat of release of hazardous substances into the environment and no significant risk to human health and the environment. The methodology allows for cases where higher priority Hanford cleanup activities warrant deferring regulated unit closure actions until prioritization decisions are made to proceed with the disposition phase.

Notwithstanding any other provision of Section 8.0, EPA and Ecology reserve the right to require closure in accordance with Federal and State hazardous waste law, and the Agreement, and to require response or corrective actions in accordance with RCRA and CERCLA and the Agreement, at any time. During the facility decommissioning process, DOE shall comply with all applicable environmental, safety and health, and security requirements.

8.1.1 Background

The DOE consolidated virtually all of its waste management, remedial action and decontamination and decommissioning (D&D) program activities in 1989 into the Office of Environmental Management (EM). Within EM, the Office of Environmental Restoration was assigned responsibility for performing remedial actions, S&M, and dispositioning activities for DOE facilities.

With the down-sizing of both nuclear weapons inventories and nuclear material production capabilities, the DOE-HQ established the Office of Facility Transition in mid-1992. This office is chartered with management of the transition from operational status to shutdown status for the numerous facilities used for nuclear material production or otherwise involved in the DOE nuclear program.

8.1.2 Applicability

This section applies to the transition, the surveillance and maintenance, and/or the disposition of key facilities located on the Hanford Site that are not fully addressed under Section 6.0 (TSD Process) or Section 7.0 (Past-

Practice Process) of this Action Plan.

Key Facilities subject to this Section 8.0 process which have been identified by the parties to date include the following: PUREX, PFP, B Plant, FFTF, UO_3 Plant, U Plant, REDOX (202-S Building), and DOE's old reactor buildings (specifically: 105-B, 105-C, 105-F, 105-D, 105-DR, 105-H, 105-KE, 105-KW, and 105/109-N buildings). The 105 reactor buildings, UO_3 Plant, U Plant, and REDOX are recognized as already having been transferred to DOE's Environmental Restoration Program. On approval of each facility Surveillance and Maintenance Plan by the Lead Regulatory Agency (see section 8.6), these facilities will be recognized as having entered the surveillance and maintenance phase as described within this section.

Other key facilities that the parties agree are subject to Section 8.0 will be decommissioned in accordance with the provisions of this section and any milestones established specific to those facilities. If there is a conflict between the provisions of this section and of a specific milestone, the provisions of the milestone will prevail. This section does not apply to the following:

- Any waste disposal unit (e.g., crib, pond, ditch, landfill)

- RCRA treatment or storage units either fully closed or scheduled for closure under Section 6.0 that result in the final disposition of the facility, or result in a remaining facility that does not qualify as a "key facility".

- Any facility which is fully addressed as part of a past-practice operable unit under Section 7.0 (i.e., N-area pilot project) or which is addressed under Section 7.0 to a condition which results in a remaining facility that does not qualify as a "key facility".

- Facilities on the Hanford Site that have already been transferred to the ER Program and which will be decommissioned as part of operable unit remediation under Section 7.0 or under DOE authority, unless identified as key facilities by the parties.

Additional key facilities will be identified by the parties on a case by case basis, using the following general criteria:

- Facilities that do not fall into any of the categories summarized in the bullets above,

- Facilities that will undergo a surveillance and maintenance period greater than 180 days with hazardous substances to be left in place,

- Facilities where physical closure actions must be performed in conjunction with facility disposition, and/or

- Facilities that may be addressed in conjunction with any other facility which qualifies as a key facility.

Upon identification as a key facility, EPA and Ecology will designate a lead regulatory agency in accordance with Section 5.6.

Key facilities do not include uncontaminated structures (i.e., contains no hazardous substances), or facilities which are fully dispositioned following a decision to remove them from use.

Only with the agreement of DOE and the lead regulatory agency may key facilities (or portions thereof) be used for alternative beneficial uses, and be addressed independent of Section 8.0.

8.1.3 Decommissioning Relationships and Key Planning Documentation

Table 8-1 shows the relationship between phases, processes and key planning documents that support the overall decommissioning process. A general description of key planning documents is included here. Additional information is provided in following text specific to the individual phases. Definitions specific to the facility decommissioning process are included in Appendix A of this document. The process described in Section 9.3 will be used to modify applicable documentation.

Table 8-1 Decommissioning Process Relationships

DECOMMISSIONING PHASES	FACILITY PROCESSES	KEY PLANNING DOCUMENTS
Transition	Stabilization Deactivation Surveillance Maintenance Decontamination	Project Management Plan (PMP)
		Facility Transition End Point Criteria Document
		Preclosure Work Plan
		Surveillance and Maintenance Plan
Surveillance and Maintenance	Surveillance Maintenance Deactivation* Decontamination*	Surveillance and Maintenance Plan
Disposition	Decontamination Dismantlement Entombment Closure Site Restoration	Decision Document (e.g., Action Memo, ROD, RCRA Closure Plan**)
		Project Design Report

* Completed on a case-by-case basis to further reduce facility surveillance and maintenance expenses.

** RCRA Closure Plan applicable to TSD units within the facility.

Project Management Plan: An internal DOE management plan prepared to aid in governing the successful completion of a project. The Plan defines DOE and DOE contractor organization, and responsibilities for executing the project. It outlines the work breakdown structure for the activities, clearly identifying the scope of work based on the technical criteria established. This document incorporates cost and schedule planning. The PMP is used to establish cost controls and milestones for tracking and reporting status on key processes and activities from start to finish of the phase. Project Management Plans are prepared during the transition phase.

Facility Transition End Point Criteria Document: A document developed during the transition phase that establishes the physical state of the systems and spaces within the facility to be achieved at the end of the transition phase. This document is used to satisfy programmatic requirements for transition to the S&M phase. The actual condition of the facility at the end of transition will be documented as part of the S&M plan.

Preclosure Work Plan: A document submitted during the transition phase. The preclosure work plan will contain, but is not limited to, elements summarized in Table 8-2. This preclosure work plan is based in part on the facility transition end point criteria document and S&M plan. The transition end point criteria document and the S&M plan are considered part of the preclosure work plan as they pertain to information related to RCRA TSD units.

Surveillance and Maintenance Plan: A document outlining facility specific activities taken to address essential systems monitoring, maintenance and operation requirements necessary at a facility to ensure efficient, cost effective maintenance of the facility in a safe condition that presents no significant threat of release of hazardous substances into the environment and no significant risk to human health and the environment until final disposition is completed.

Project Design Report: The Project Design Report (PDR) is prepared to describe activities during the disposition phase of the facility. The PDR is prepared consistent with Section 7.0 requirements for the remedial design/remedial action phase of the project. The report will contain a definition of the project scope (i.e., goals, objectives, background information, and scope statement), description of specific tasks, cost, and schedule for the completion of disposition. The intent of the report is to identify the basis and provide direction for preparation of detailed work packages or procedures utilized for conducting the project tasks. The contents of the PDR may be submitted as a separate document (i.e., Remedial Design Report) or as part of an overall design document. The lead regulatory agency will be involved in the development of the PDR and have approval in part as appropriate for the final document.

Decision Document: Documentation required to authorize implementation of the disposition phase activities: a) will be prepared in accordance with the provisions of Section 7.0 and the joint policy on Decommissioning of DOE Facilities under CERCLA, and b) will be prepared in accordance with Section 8.8 for any necessary RCRA TSD closure plans. The decision document (e.g., Action Memorandum, Record of Decision, Closure Plan) issued by the lead agency in accordance with Section 7.0 or Section 8.8 of the Action Plan will be the

decision document for key facilities and will define the final end states as developed under Section 8.7.1, as well as preliminary cost and schedules.

8.2 FACILITY OPERATIONS

Facility operations precede the decommissioning process and consequently are only briefly addressed in this section. Prior to receiving a formal shutdown notice from DOE-HQ, facilities that do not have a future mission may begin preparing for the transition phase of the decommissioning process. Preparation may include conducting final process vessel clean out runs in order to expedite transition phase activities and to avoid the necessity for operational permitting of process vessels containing hazardous materials for storage and/or treatment following a determination that their contents are dangerous wastes. Facility personnel may also initiate preliminary development of transition end point criteria to describe the physical state of the systems and spaces within the facility at the end of the transition phase. The process of developing transition end point criteria will be structured to specifically incorporate regulatory, tribal and stakeholder input and involvement. Once a shutdown order has been received or a separate agreement is made by the parties, the facility will enter the transition phase as described in Section 8.5.

8.3 DECOMMISSIONING PROCESS PLANNING

The parties agree that sufficient up front planning for facilities that will undergo decommissioning is necessary to support the budget planning process and to facilitate integration and prioritization of decommissioning with other Hanford cleanup efforts. The parties also recognize, however, that there may be unanticipated situations in which it will be necessary to take immediate actions to abate significant threats to human health or the environment.

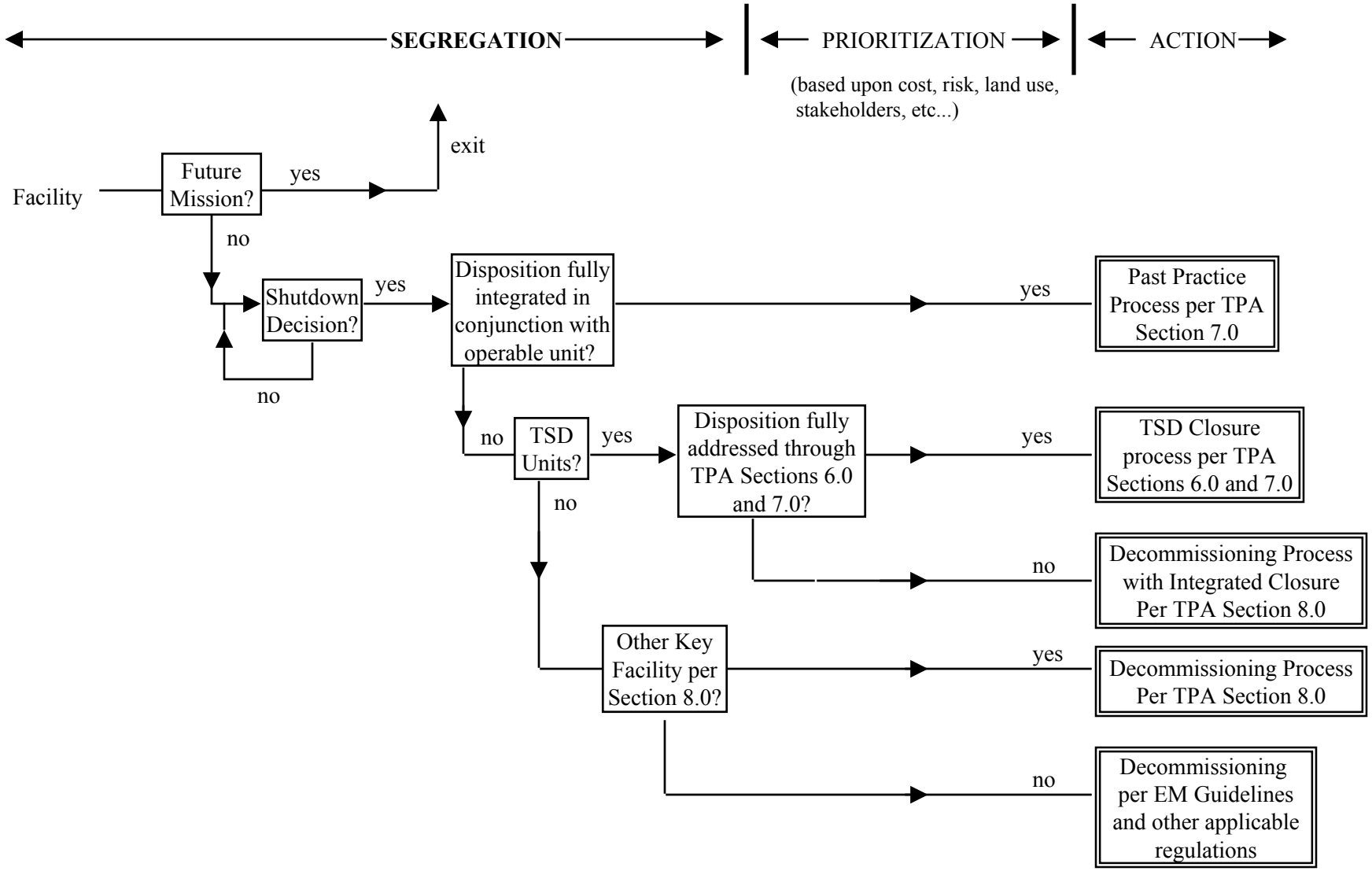
8.3.1 Long-Term Planning

DOE developed and submitted its long-term facility decommissioning plan covering key Hanford facilities to Ecology and EPA for review in June, 1996. This plan and associated Agreement commitments (including those made pursuant to Section 8.3.2) are expected to aid the parties in addressing overall decommissioning planning for existing and future facilities on the Hanford Site. The plan categorized facilities through a series of key decision-making questions such as the logic process shown in Figure 8-1. The parties recognize that there are a large number of facilities on the Hanford Site. However, many of the facilities are administrative and/or small in nature and will fall into the category of non-key facilities. A listing of these non-key facilities will be maintained for information purposes. Many facilities are associated with and may be addressed as part of a larger facility. In these cases, facility complexes will be identified as one key facility for the purpose of implementing the decommissioning process.

For key facilities subject to the decommissioning process under this section, the plan includes a long-term road map depicting the approximate time periods that the key facilities (or facility complexes) are expected to undergo transition, surveillance and maintenance, and/or disposition. The

road map is for use by the parties to assist in the planning process in order to integrate and prioritize work, and is not considered a committed schedule. Such commitments will be established under the Agreement (see Section 8.3.2). This plan will be updated biennially as part of the biennial review (see Section 8.3.3).

Figure 8-1 Predecommissioning Planning



8.3.2 Negotiations

The long-term facility decommissioning plan, as well as pertinent Agreement milestones and associated commitments, will be used by the parties as aids in scheduling future decommissioning related negotiations. Such negotiations will be coordinated with the facility planning phases discussed under Sections 8.5 and 8.7.

8.3.3 Biennial Review and Update

The parties will; (1) conduct a biennial review of facility/unit status, the long-term facility decommissioning plan, and associated Agreement commitments; (2) discuss current priorities; (3) and assess what changes are necessary. Based on this review and the latest DOE guidance associated with the future use of facilities, DOE will update and submit the long-term facility decommissioning plan and any draft changes addressing proposed Agreement modifications to EPA and Ecology.

8.4 GENERAL DECOMMISSIONING PROCESS

The typical facility decommissioning process, shown in Figure 8-2, depicts the sequential phases a facility undergoes following facility operations and includes transition, surveillance and maintenance (S&M), and disposition. This process is normally initiated following a decision from DOE-HQ to shut down a subject facility and proceed with decommissioning activities. The process time frame is established by milestones and associated target dates negotiated as part of the Agreement, and in most cases will be established one phase at a time.

Figure 8-2 Typical Decommissioning Process

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A------------->-B------------->-C------------->-D

  Transition        S&M            Disposition
  Phase             Phase          Phase
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A = Marks the end of the operational phase. A determination has been made by DOE-HQ that the facility is a surplus facility (i.e., formal letter documentation).

B = Marks the end of the transition phase. The preclosure work plan, surveillance & maintenance (S&M) plan and transition end point criteria document are updated as required, and approved by the DOE program responsible for S&M, and by the lead regulatory agency. The DOE review will include a check for transition end point criteria adequacy and equivalency to EM acceptance criteria objectives. Following receipt of necessary approvals, this point marks the start of the S&M phase as an interim period prior to DOE initiation of the disposition phase.

C = Decision to proceed with disposition phase.

D = Completion of disposition phase in compliance with applicable or relevant and appropriate requirements and in a condition protective of human health and the environment. (Note: All associated RCRA closure actions are completed at this point.)

Figure 8-2 has been expanded in Figures 8-3 through 8-5 to include individual process steps involved with each of the subject phases. Figures 8-3 through 8-5 identify actions involving regulatory, tribal, and public involvement, and those actions or documents requiring specific regulatory approval. Agreement negotiations are shown as part of the transition, S&M and disposition phases. More detailed descriptions of individual phases, actions and documentation are discussed in Sections 8.5 through 8.7.

8.5 TRANSITION PHASE

The transition phase of a facility is initiated when a formal shutdown decision is made by DOE. Figure 8-3 shows a breakdown of the activities associated with the transition phase. The numbers shown in the boxes correspond with the section numbering from this document. Discussion specific to RCRA TSD closure plan preparation and submittal is contained in Section 8.8.

8.5.1 Transition Planning

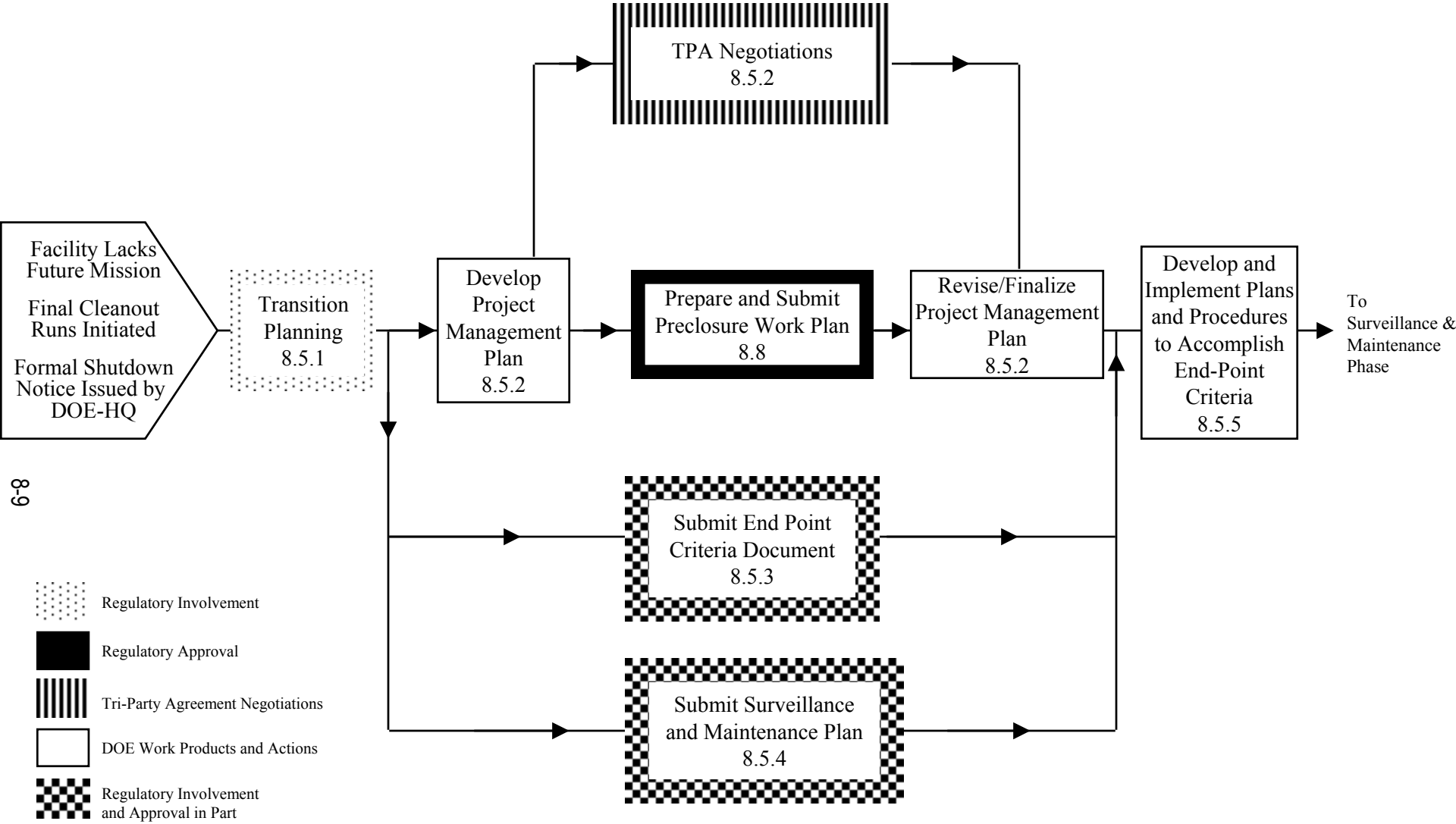
Early in the transition phase, project goals and objectives are developed in conjunction with regulatory, tribal and public input and involvement to enable a mutually agreeable and efficient transition. Vital to the success of this phase is development of transition end point criteria and S&M planning information. Transition end point criteria and S&M planning are discussed in greater detail in Sections 8.5.3 and 8.5.4, respectively. DOE will initiate discussions with the lead regulatory agency, tribes and the public to identify issues and develop proposals within three months of an official shutdown notice decision made by DOE-HQ.

During the transition planning stage, NEPA documentation supporting transition will be initiated as necessary and a preclosure work plan or closure plan will be developed for RCRA TSD units requiring RCRA closure. Where final closure of a unit does not need to be performed in conjunction with key facility disposition, a closure plan will be submitted. Documentation produced during this stage will support protection of human health and the environment and consider waste minimization and pollution prevention opportunities.

8.5.2 Project Management Plan

The Project Management Plan (PMP) is prepared to describe how transition phase activities will be managed. The PMP contains work breakdown structures, cost and schedule information, and summarizes major project targets and Agreement milestones. If necessary, a revision to the PMP will be made at the conclusion of the Agreement negotiations to ensure consistency with scheduling agreements. The process of developing and revising the PMP is depicted in Figure 8-3.

Figure 8-3 Transition Phase Breakdown



8.5.3 Transition End Point Criteria

DOE-HQ has developed a set of generic acceptance criteria for use complex wide as a target for acceptance into the S&M phase. Based on these generic acceptance criteria, facility specific transition end point criteria are developed throughout the transition phase with intent to establish acceptable final conditions of systems (i.e., tanks, piping) and spaces (i.e., rooms, areas) at the end of the transition phase. In general, the acceptance criteria require:

- documentation for the active systems and structural integrity of the facility,
- updated permitting and documented regulatory status that reflects the shutdown, stabilized condition of the facility,
- documentation of remaining hazardous and radioactive material in the facility,
- documentation of and facility history for the shutdown systems, and
- a DOE approved S&M Plan for the facility.

The transition end point criteria are tailored specifically to the facility in question and are based on the EM acceptance criteria and regulatory, tribal and public input. Transition end point criteria will be developed and documented early in the transition phase in conjunction with discussions with the regulators, tribes and stakeholders to facilitate achieving mutually accepted criteria. Aspects of the criteria may evolve during transition necessitating revisions and refinements to the criteria.

Transition end point criteria are applicable to all facilities, and their equipment and systems accepted into a surveillance and maintenance phase. All transition end point criteria will be initially developed to incorporate regulatory, tribal and stakeholder input and values. However, lead regulatory agency approval over transition end point criteria will be specific to regulated units, and/or hazardous substances proposed to remain in the facility after the transition phase is complete. Transition end point criteria will take the form of a document addressing both regulated and non-regulated equipment and systems. This document will be submitted to the lead regulatory agency in conjunction with the preclosure work plan and S&M plan. Transition end point criteria will be consistent with, and will not prejudice the development of acceptable end state criteria. Changes to approved transition end point criteria will be coordinated with the lead regulatory agency, and approved for changes affecting regulated units and hazardous substances that will remain in the facility.

8.5.4 Surveillance and Maintenance Plan

A surveillance and maintenance (S&M) plan is developed along with transition end point criteria since the selected transition end point criteria directly dictate actions that will be performed during the S&M phase. The S&M plan describes facility-specific activities to be taken in order to adequately address monitoring, maintenance and operational requirements for the essential systems at a facility. It will ensure that the facility is maintained cost effectively and in a safe, stable condition that presents no significant threat of release of hazardous substances into the environment and no significant risk to human health and the environment until final disposition is completed. Although the S&M plan evolves throughout the transition phase, focused efforts and coordination with the lead regulatory agency, tribes and stakeholders are emphasized early in the transition phase to facilitate a mutually agreeable approach to S&M.

The S&M plan will cover hazardous substances and both regulated and non-regulated equipment and systems. Although the S&M plan will be developed to incorporate regulatory, tribal and stakeholder input and values, lead regulatory agency approval of the S&M plan will be specific to regulated units and hazardous substances in the facility. Post closure care activities will be negotiated with the lead regulatory agency on a case by case basis and incorporated into the S&M plan.

For facilities that contain RCRA TSD units, the S&M plan developed during the transition phase will be submitted to Ecology in conjunction with the preclosure work plan and the latest transition end point criteria document.

8.5.5 Proceed with and Complete Transition Activities

In accordance with transition planning and Agreement negotiations, internal work plans and procedures are developed to aid accomplishing the facility specific transition phase tasks. Procedures provide operational guidance for the workers to achieve the objectives outlined in the facility transition planning documentation. As systems and spaces reach their identified transition end points, S&M activities are initiated consistent with the S&M plan. At the point where all systems and spaces at the facility achieve their respective transition end point conditions, the facility will await transfer to the S&M phase contingent upon verification of achievement of end point criteria (and acceptance criteria not addressed by the end point criteria). Appropriate records documenting transition related activities will, at a minimum, be maintained through completion of the disposition phase. During the facility decommissioning process, DOE shall comply with all applicable environmental, safety and health, and security requirements.

8.6 SURVEILLANCE AND MAINTENANCE PHASE

The surveillance and maintenance (S&M) phase for facilities is conducted in accordance with the S&M plan developed for each facility. For facilities transitioned under Section 8.5, the S&M Plan is developed as part of the transition phase. For key facilities (See Section 8.1.2), which did not proceed through formal transition, but which have been transferred to DOE's Environmental Restoration Program, S&M Plan(s) will be submitted in accordance with established Agreement milestones. The S&M phase is shown in Figure 8-4. The objectives of the S&M phase are to ensure adequate containment of any contaminants left in place and to provide physical safety and security controls and to maintain the facility in a manner that will present no significant risk to human health or the environment.

S&M plans will be prepared by DOE and will detail facility aspects and associated requirements including the following: (1) surveillance, (2) maintenance, (3) quality assurance, (4) radiological controls, (5) hazardous substance inventory, management and protection, (6) health and safety/emergency preparedness, (7) safeguards and security, and (8) cost and schedule. DOE shall comply with all applicable environmental, safety and health, and security requirements throughout the S&M phase.

8.6.1 Initiation of S&M Phase

The S&M Phase will start after plant operators have verified the transition end points, the lead regulatory agency and DOE-HQ have received the verification, and all appropriate approvals have been received. Initiation of the S&M phase is shown as the first box in Figure 8-4.

8.6.2 Biennial Evaluations of Disposition Priorities

Throughout the S&M phase, biennial evaluations of long term S&M and disposition plans and schedules will be performed. These evaluations will be performed in conjunction with the biennial reviews discussed in Section 8.3.3 and Agreement negotiations to identify, evaluate and assess the status of Hanford Site priorities as well as tribal and stakeholder values. S&M surplus facilities will be included in the evaluation of disposition priorities.

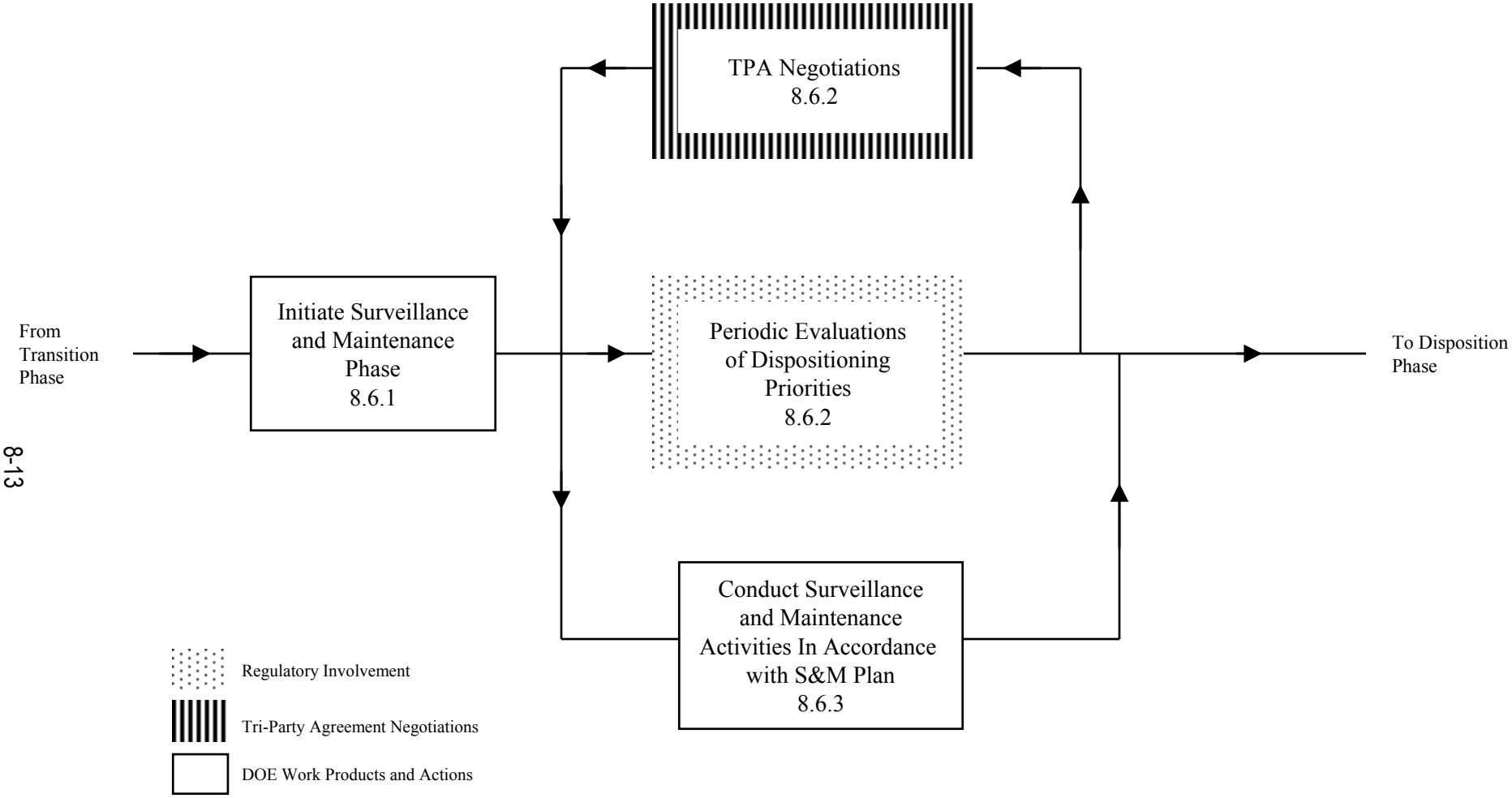
8.6.3 Ongoing S&M Activities

Ongoing S&M activities will be conducted in accordance with the approved S&M plan and associated Agreement commitments until a decision is made by DOE-HQ to initiate the disposition phase, or actions are required by the lead regulatory agency pursuant to the terms of Sections 8.3.3 or 8.1.

8.7 DISPOSITION PHASE

The disposition phase is initiated following a decision by DOE-HQ, or may result from a decision by the lead regulatory agency pursuant to the terms of Section 8.1. Figure 8-5 shows a breakdown of the activities associated with the disposition phase. The numbers identified in the boxes correspond with applicable discussion below. Discussion specific to closure plan revision is deferred to Section 8.8.

Figure 8-4 Surveillance and Maintenance Phase Breakdown



8.7.1 Disposition Phase Planning

Early in the disposition phase, project goals and objectives are developed in conjunction with lead regulatory agency, tribal and public input and involvement to enable a mutually agreeable and efficient disposition of the facility. A cooperative effort among all parties will be required in order to establish and revise the disposition end state consistent with applicable requirements. DOE will initiate discussions with the lead regulatory agency, tribes and public to identify issues, evaluate alternatives, and develop a proposed disposition alternative to meet defined end states.

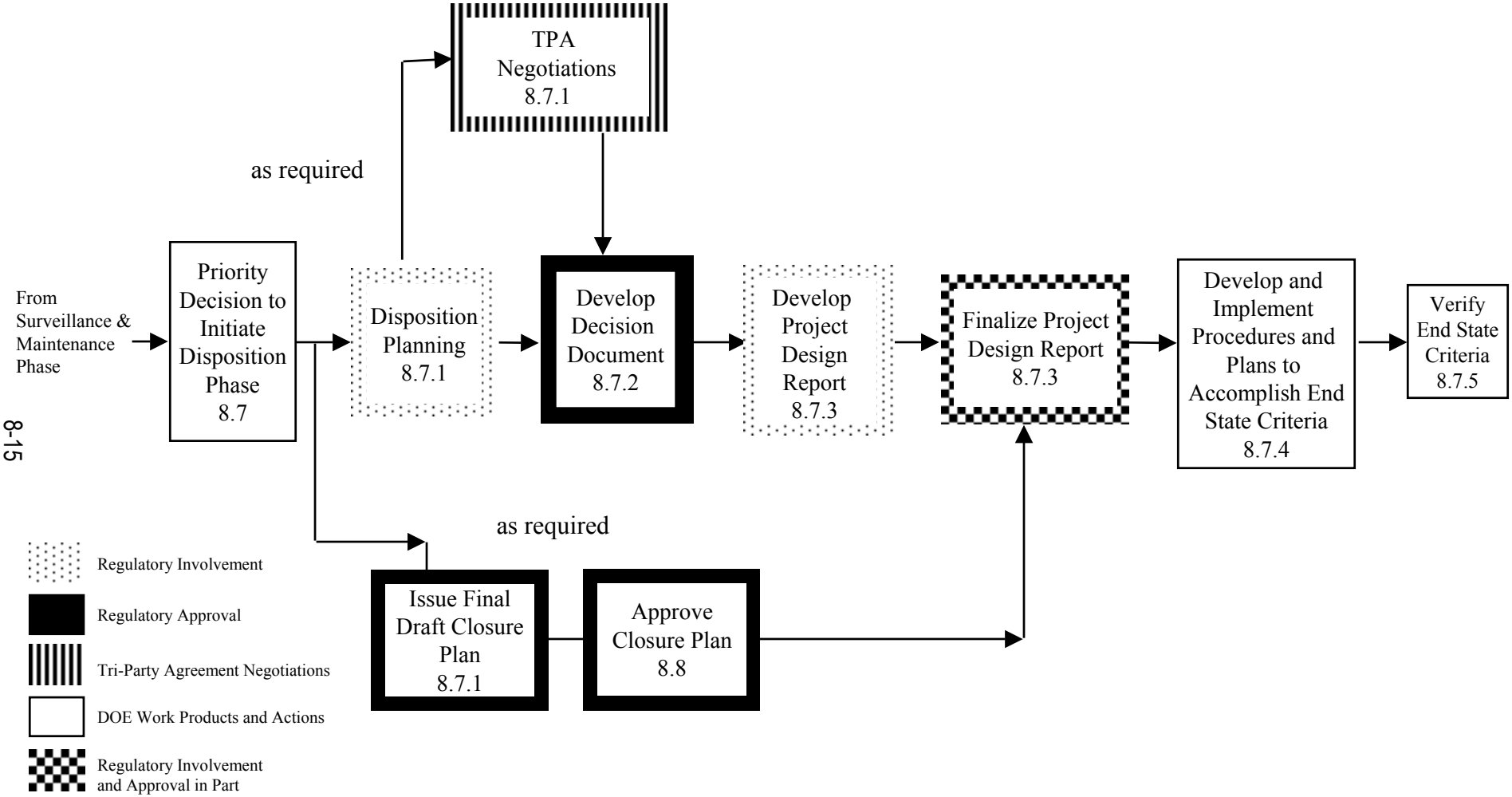
The facility specific disposition end states are developed during the disposition planning phase with the intent to establish the ultimate acceptable condition of systems and spaces at the end of the disposition phase. Disposition end states will be developed and documented early in the disposition phase in conjunction with the lead regulatory agency, tribes and stakeholders to facilitate mutually acceptable criteria. Aspects of the end states that pertain to RCRA TSD units and/or hazardous substances shall be developed, revised or refined only with the approval of the lead regulatory agency.

Disposition end states will be initially developed to incorporate lead regulatory agency and stakeholder input and values. The disposition end states will be contained in a document covering hazardous substances and both regulated and non-regulated equipment and systems. The lead regulatory agency will have approval authority over disposition end states for regulated RCRA TSD units and hazardous substances. This document (e.g., EE/CA, Proposed Plan) will be prepared in accordance with Section 7.0 and will be submitted to the lead regulatory agency in conjunction with any necessary closure plan. The final draft Closure Plan for RCRA TSD units will be submitted for public review and comment at the same time as the disposition planning document. DOE and the lead regulatory agency may establish Agreement commitments during the planning phase to be incorporated into the decision documentation in Section 8.7.2.

8.7.2 Decision Documents

Documentation required to authorize implementation of the disposition phase activities: a) will be prepared in accordance with the provisions of Section 7.0 and the joint policy on Decommissioning of DOE Facilities under CERCLA, and b) any necessary closure plans for RCRA TSD units will be prepared in accordance with Section 8.8. The decision document (e.g., Action Memorandum, Record of Decision, Closure Plan) issued in accordance with Section 7.0 or Section 8.8 of the Action Plan will define the final end states as developed under Section 8.7.1, as well as preliminary cost and schedules.

Figure 8-5 Disposition Phase Breakdown



8.7.3 Project Design Report

The Project Design Report (PDR) is prepared to describe activities during the disposition phase of the facility. The PDR is prepared consistent with Section 7.0 requirements for the remedial design/remedial action phase of the project. The report will contain a definition of the project scope (i.e., goals, objectives, background information, and scope statement), description of specific tasks, cost, and schedule for the completion of disposition. The intent of the report is to identify the basis and provide direction for preparation of detailed work packages or procedures utilized for conducting the project tasks. The contents of the PDR may be submitted as a separate document (i.e., Remedial Design Report) or as part of an overall design document. The lead regulatory agency will be involved in the development of the PDR and have approval in part to ensure consistency with the final decision document.

8.7.4 Proceed with and Complete Disposition Phase Activities

In accordance with disposition planning and associated Agreement commitments, implementing documentation will be developed to accomplish facility-specific disposition phase tasks. Detailed work packages and procedures provide operational guidance for the workers to satisfy the objectives outlined in the disposition planning documentation. At the point where all systems and spaces at the facility achieve their respective disposition end state condition, final disposition is achieved and the end states will be verified. Appropriate records documenting transition and closure related activities will be maintained on file. During the disposition phase, DOE shall comply with applicable environmental law, safety and health, and security requirements.

8.7.5 Verification of Disposition End State

During the closeout and verification of the disposition phase, achievement of disposition end state criteria will be verified. DOE will perform verification surveys and sampling. Verification will specifically tie to closure planning requirements for applicable regulated units. All verification results, regardless of the methods used, will be available to the public.

8.7.6 Integration of Disposition Phase with Operable Units

As shown on Figure 8-1, some facilities will be addressed fully in conjunction with operable unit activities under Agreement Section 7.0 or under DOE authority. These facilities are not covered by this Section 8.0. For key facilities that are only partially addressed as part of an operable unit activity, the remaining disposition phase activities will be planned and conducted under this section. This may include the management of soil contamination not accessible during the operable unit activity.

In the event disposition of a key facility proceeds prior to operable unit activity, the disposition of any contaminated soils and site restoration activities may be deferred to follow-on operable unit activities conducted under Section 7.0. Any such agreement will be documented in writing and approved by the DOE and Lead Regulatory Agency executive managers.

8.8 PRECLOSURE WORK PLAN AND RCRA CLOSURE PLAN

Washington's HWMA and associated regulations contained in Chapter 173-303 WAC require owners or operators of dangerous waste treatment, storage or disposal facilities to have a written and approved closure plan. DOE, Ecology and EPA have established a mutually acceptable closure plan format that is being used currently for Hanford Site closure plans. The basic closure plan format contains the following nine chapters: 1) Introduction, 2) Facility Description, 3) Process Information, 4) Waste Characteristics, 5) Groundwater Monitoring, 6) Closure Strategy and Performance Standards, 7) Closure Activities, 8) Postclosure Plan, and 9) References.

The nature of the decommissioning process has led DOE, Ecology and EPA to evaluate the timing of RCRA closure at key facilities. The phased decommissioning process combined with the requirements of NEPA and future land use determinations will often make completion of RCRA closure activities during the transition or S&M phases impracticable. In cases where timely completion of RCRA TSD unit closure is practicable, DOE will prepare, and submit to Ecology for review and approval, a complete closure plan for implementation during the transition phase. In cases where physical conditions and/or unknowns prevent timely completion of closure, DOE will prepare, and submit to Ecology for review and approval, a preclosure work plan for implementation during the transition phase. The preclosure work plan will detail actions to be completed during the transition phase in order to facilitate full RCRA closure in the future. These efforts may include removal of dangerous wastes and hazardous substances and/or removal or decontamination of equipment or structures contaminated with dangerous wastes or hazardous substances. The content of the preclosure work plan and its relationship to the RCRA closure plan are summarized in Table 8-2. The transition phase will not be considered complete until DOE has either completed RCRA closure and/or implemented a lead regulatory agency approved preclosure work plan. In cases where closure is not completed during the transition phase, the S&M plan for the key facility will address RCRA compliance. It is anticipated that, for such units, RCRA closure will be conducted during the disposition phase, however, Ecology may, at any time, choose to accelerate closure timing and/or initiate final closure in order to assure timely protection of human health and the environment. Agreement negotiations during the transition and disposition phases will establish Agreement milestones and target dates applicable to preclosure and closure activities.

In addition to its review and approval of RCRA closure plans and preclosure work plans, the lead regulatory agency will have approval authority in establishing acceptable transition end point criteria and disposition end states for hazardous substances and associated facility systems and spaces. The transition end point criteria document and/or disposition end states will be submitted to the lead regulatory agency with closure plans and/or preclosure work plans during the transition and/or disposition phases as appropriate (e.g., if closure will occur during the transition phase, the transition end point criteria document will be submitted with the RCRA closure plan). The lead regulatory agency will also have involvement in and receive an S&M plan for each key facility. The S&M plan will be developed by DOE and submitted to the lead regulatory agency during the transition phase in conjunction with the transition end point criteria document and closure plan or preclosure work plan. When approved, the S&M Plan will document any hazardous substances to be left at the facility during the S&M phase.

Table 8-2 Preclosure Work Plan and Closure Plan Elements *

Cpt	Description	Preclosure Work Plan Submitted During Transition Phase	Closure Plan on Submittal, e.g., During Disposition Phase
1	Introduction	ALL	ALL
2	Facility Description	ALL	ALL
3	Process Information	ALL	ALL
4	Waste Character-istics	ALL	ALL
5	Groundwater Monitoring	Documents the nature and extent of groundwater contamination that has occurred and describes actions necessary during the S&M phase	Documents details of groundwater investigation, necessary remediation and monitoring (may be conducted in conjunction with applicable CERCLA operable unit and RI/FS process)
6	Closure Strategy and Performance Standards	Documents the preclosure strategy, end point criteria performance standards and necessary transition phase preclosure activities. This chapter will contain a qualitative assessment of anticipated closure and postclosure outcomes, if known (i.e., clean closure or otherwise)	Remaining details including closure of secondary containment, end state of systems and material left in place, final disposition of vessels, end state of canyon structures and integration with CERCLA remedial activities. Includes cross references to surveillance and maintenance plan
7	Closure Activities	Detailed description of any closure activities and schedule(s)	Describes the remaining closure information/activities related to disposition phase
8	Postclosure Plan	Postclosure activities will be addressed to the extent known	Detailed Postclosure plan if decision is made to leave waste in place
9	References	Includes references used in transition phase of the preclosure work plan	Includes all remaining references

* Requirements of a RCRA closure plan are specified in 40 CFR 264 and Chapter 173-303 WAC, and are only briefly summarized here

9.0 DOCUMENTATION AND RECORDS

This section categorizes the documents that are described in this action plan, and describes the processes for their review and comment and for their revision if required. In addition, this section identifies the distribution requirements for documents and the requirement for an administrative record.

9.1 CATEGORIZATION OF DOCUMENTS

For purpose of the action plan, all documents will be categorized as either primary or secondary documents. Primary documents are those which represent the final documentation of key data and reflect decisions on how to proceed. Table 9-1 provides a listing of primary documents. Secondary documents are those which represent an interim step in a decision-making process, or are issued for information only and do not reflect key decisions. Table 9-2 provides a listing of secondary documents. Note that only primary documents are subjected to the dispute resolution process in accordance with the Agreement.

9.2 DOCUMENT REVIEW AND COMMENT PROCESS

9.2.1 Primary Documents (with exception of Part B Permit Applications and Closure/Postclosure plans)

Figure 9-1 provides the process flow for reviewing and commenting on primary documents. The flowchart reflects the multiple paths that a primary document may take depending on the type and extent of comments received. The time periods for specific actions are as noted on Figure 9-1. The process shown in Figure 9-1 does not preclude either the EPA or Ecology (whichever has authority regarding the primary document) from taking enforcement action at any point in the process for failure to perform. Comments may concern all aspects of the document (including completeness) and should include, but are not limited to, technical evaluation of any aspect of the document, and consistency with RCRA, CERCLA, the NCP, and any applicable regulations, pertinent guidance or written policy. Comments by the lead regulatory agency shall be provided with adequate specificity so that the DOE can make necessary changes to the document. Comments shall refer to any pertinent sources of authority or references upon which the comments are based and, upon request of the DOE, the commenting agency shall provide a copy of the cited authority or reference. The lead regulatory agency may extend the comment period for a specified period by written notice to the DOE prior to the end of the initial comment period.

Representatives of the DOE shall make themselves readily available to the lead regulatory agency during the comment period for the purposes of informally responding to questions and comments. Oral comments made during these discussions are generally not the subject of a written response by the DOE.

Upon receiving written comments from the lead regulatory agency, the DOE will update the document and/or respond to the comments (for closure plans, comments will be provided in the form of an NOD). The response will address all written comments and will include a schedule for obtaining additional information if required. The DOE may request an extension for a specified period for responding to the comments by providing a written request to the lead regulatory agency.

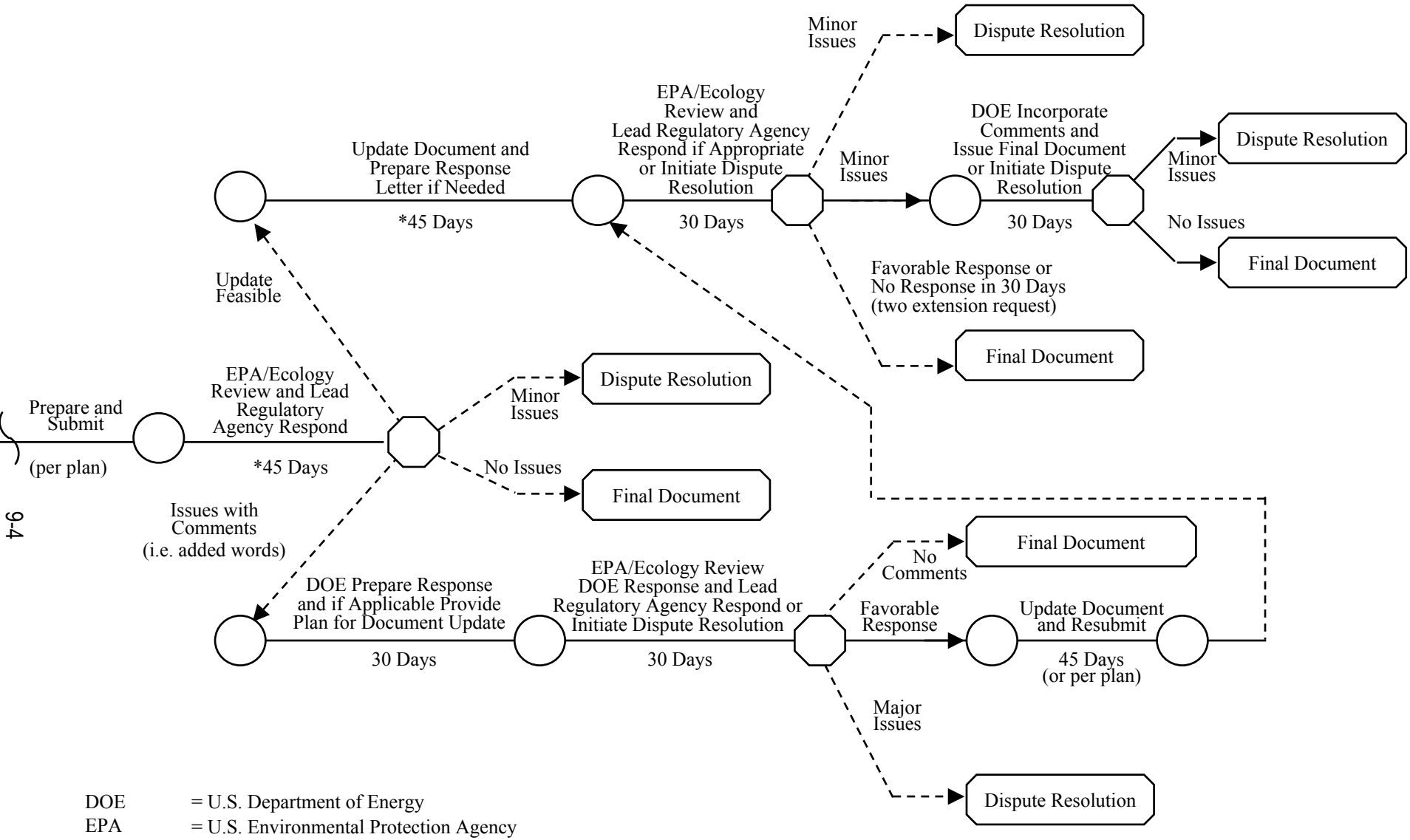
Table 9-1. Primary Documents.

Remedial investigation/feasibility study (RI/FS) work plan
Remedial investigation (RI) Phase II report
Feasibility study (FS) Phases I and II report
FS Phase III report
Preclosure Work Plan
Proposed plan
Remedial design (RD) report
Remedial action (RA) work plan
Operation and maintenance (O&M) plan
Closure plan
Part B permit application (for operation and/or postclosure)
RCRA facility assessment (RFA) report
RCRA facility investigation/corrective measures study (RFI/CMS) work plan
RCRA facility investigation (RFI) report (final)
Corrective measures study (CMS) report (preliminary and final)
Corrective measures implementation (CMI) work plan
Corrective measures design (CMD) report
Interim response action (IRA) proposal
Interim measure (IM) proposal
Waste/Material Stream Project Management (Work) Plans (see Action Plan Section 11.5).
Other work plans (as specified in Section 11.6)
Other documents as specified elsewhere in the Agreement

Table 9-2. Secondary Documents.

Hanford Operable Units Report (Currently titled "Preliminary Operable Units Designation Project")
RI Phase I report
RFI report (preliminary)
Hanford Site waste management units report
Sampling and data results
Treatability investigation work plan*
Treatability investigation evaluation report
Supporting studies and analyses
Other related documents, plans, and reports not considered as primary

*Per Section 7.3.6, selected treatability investigation work plans can be established as primary documents by the lead regulatory agency.



DOE = U.S. Department of Energy
EPA = U.S. Environmental Protection Agency
Ecology = State of Washington Department of Ecology

*With exception of 60 days for RI/FS work plans and RFI/CMS work plans

Figure 9-1. Review and Comment on Primary Documents. (See Figure 9-2 for Part B Permit Application and Closure/Postclosure Plan Review)

Upon receiving responses to the comments on a primary document, the lead regulatory agency will evaluate the responses. In the event that the responses are inadequate, the matter will enter the dispute resolution process as set forth in the Agreement. However, dispute resolution related to NODs cannot be initiated until after two NODs have been issued by the lead regulatory agency, unless otherwise agreed to by the DOE and the lead regulatory agency. It is anticipated that the majority of the disputes will be resolved during the informal dispute resolution period. Within 21 days of completion of the dispute resolution, or within 30 days of receipt of the lead regulatory agency evaluation of the responses if there is no dispute, the DOE will incorporate the resolved comments into the document. The DOE may extend the period for revising the document by obtaining written approval of the lead regulatory agency.

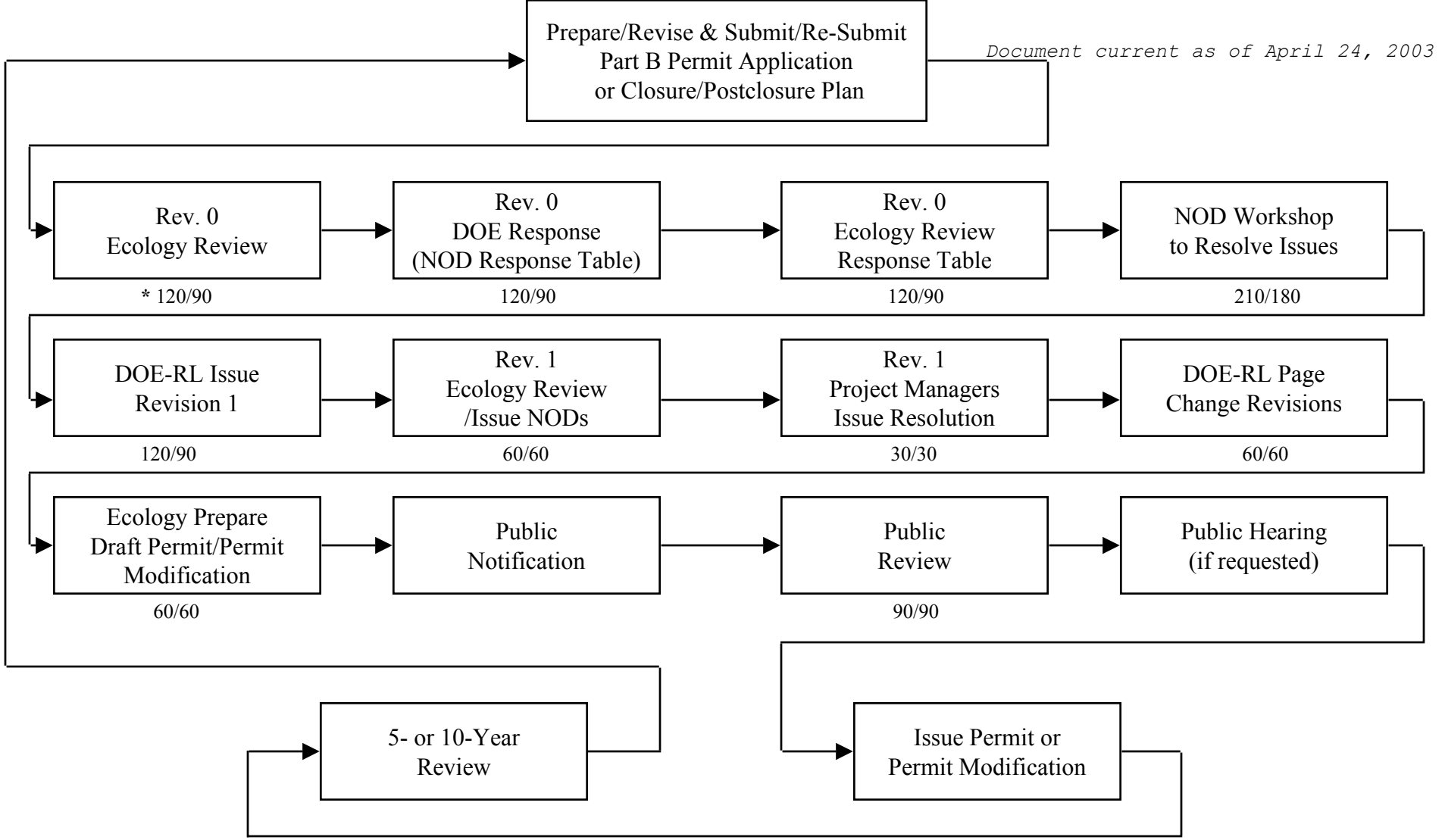
Upon receiving an updated document, the lead regulatory agency will determine if the document is complete. If major issues still exist, the dispute resolution process can be initiated. If the document is complete, or only minor modifications are necessary, the lead regulatory agency will so notify the DOE. If the lead regulatory agency does not respond and has not notified DOE of the need for an extension, the document becomes final at the end of the 30-day period.

9.2.2 Part B Permit Applications and Closure/Postclosure Plans (Operations and Postclosure)

The process for review of Part B Permit Applications and Closure/Postclosure Plans will be different than for other primary documents due to the size and complex nature of these documents. In addition, Part B Permit Applications do not receive final "approval" from the regulatory agencies. These documents, when complete, are used to form permit conditions. Portions of the applications will be incorporated into the permit along with permit conditions.

Figure 9-2 shows the process for review of Part B Permit Applications and Closure/Postclosure Plans except as provided for in Sections 5.5 and 7.4.2, or otherwise agreed. Upon receiving these documents from the DOE, the lead regulatory agency will provide comments as outlined in Figure 9-2. It is understood by the parties that in many cases the lead regulatory agency will extend the comment period for a specified period of time to accommodate the complexity and size of the document.

If the Part B Permit Application or Closure/Postclosure Plan is determined to be incomplete, comments will be transmitted by the lead regulatory agency in the form of an NOD. Upon receiving an NOD, the DOE will update the document as necessary by following the review/response process outlined in Figure 9-2. With concurrence of the lead regulatory agency, the update may be in the form of either supplemental information to, or a revised portion of, the previously submitted Part B Permit Application or Closure/Postclosure Plan. If the DOE is unable to comply with this timeline, it may request an extension within 30 days of receipt of the NOD. This request will include specific justification for granting an extension, a detailed description of actions to be taken, and the proposed date for resubmittal of the application.



* Permit or Closure/Postclosure Days for Completion

DOE = U.S. Department of Energy
Ecology = State of Washington Department of Ecology
NOD = Notice of Deficiency

Figure 9-2. Part B Permit Application and Closure/Postclosure Plan Process Flowchart.

Dispute resolution for NODs cannot be initiated until two NODs have been issued by the lead regulatory agency, unless agreed to by the lead regulatory agency and DOE. Once an application or closure plan is determined by the lead regulatory agency to be complete, the agency will begin drafting the permitting document. The permitting actions are also shown in Figure 9-2. The process for development and maintenance of the Hanford Site permit is discussed in Section 6.2

In addition to standard public notification procedures, the public will be informed about proposed permit and closure actions in a Hanford newsletter. However, it is anticipated that in many cases, comments from the public will result in a public hearing on the draft document. All comments on the draft document, including those received during the public hearing will be addressed in a response summary and incorporated in accordance with 173-303-840(7) and (9) WAC. Public hearing opportunities are further discussed in Section 10.7.

9.2.3 Secondary Documents

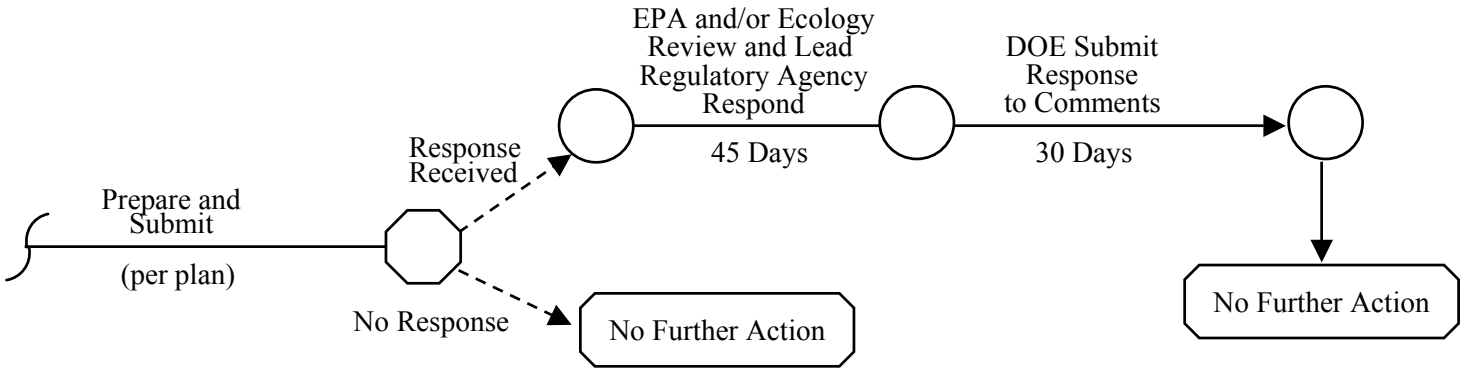
Figure 9-3 provides the process flow for reviewing and commenting on secondary documents. As shown, the lead regulatory agency has the option to provide comments or take no action. If comments are provided by the lead regulatory agency, then the DOE will respond in writing. The same criteria for review presented in Section 9.2.1 for primary documents will be used for secondary documents. Secondary documents are not subject to dispute resolution.

9.3 DOCUMENT REVISIONS

Following finalization of a document, the lead regulatory agency, or the DOE may seek to modify the document. Such modifications may require additional field work, pilot studies, computer modeling, or other supporting technical work. This normally results from a determination, based on new information (i.e., information that became available or conditions that became known after the report was finalized), that the requested modification is necessary. The requesting party may seek such a modification by submitting a concise written request to the appropriate project manager(s).

In the event that a consensus on the need for a modification is not reached by the project managers, either the DOE or the lead regulatory agency may invoke dispute resolution, in accordance with the Agreement, to determine if such modification shall be made. Modification of a report shall be required only upon a showing that the requested modification could be of significant assistance in evaluating impacts on the public health or the environment, in evaluating the selection of remedial alternatives, or in protecting human health and the environment.

Nothing in this section shall alter the lead regulatory agency's ability to request the performance of additional work in accordance with the Agreement. If the additional work results in a modification to a final document, the review and comment process will be the same as for the original document. Minor changes to approved plans which do not qualify as minor field changes under Section 12.4 can be made through use of a change notice. Such plans include RI/FS work plans, remedial action work plans, RFI/CMS work plans, CMI work plans, and other work plans as described in Section 11.5. (Modifications to permits and closure plans will be made in accordance with



DOE = U.S. Department of Energy

EPA = U.S. Environmental Protection Agency

Ecology = State of Washington Department of Ecology

Figure 9-3. Review and Comment on Secondary Documents.

applicable procedures specified in 173-303 WAC and 40 CFR 270.41). The change notice will not be used to modify schedules contained within these supporting plans. Such schedule changes will be made in accordance with Section 12.0, Changes to the Agreement.

Minor changes to approved plans include specific additions, deletions, or modifications to its scope and/or requirements which do not affect the overall intent of the plan or its schedule. The lead regulatory agency will evaluate the need to revise the plan. If the revision is determined to be necessary, the lead regulatory agency will decide whether it can be accomplished through use of the change notice, or if a full revision to the plan in accordance with this section is required.

The change notice will be prepared by the appropriate DOE project manager and approved by the assigned project manager from the lead regulatory agency. The approved change notice will be distributed as part of the next issuance of the applicable project managers' meeting minutes. The change notice will thereby become part of the Administrative Record. The change notice form shall, as a minimum, include the following:

- Number and title of document affected
- Date document last issued
- Date of this change notice
- Change notice number
- Description of change
- Justification and impact of change (to include affect on completed or ongoing activities)
- Signature blocks for the DOE and lead regulatory agency project managers

9.4 ADMINISTRATIVE RECORD

The administrative record serves basically the same purpose in the CERCLA, RCRA, and State dangerous waste programs. The administrative record is the body of documents and information that is considered or relied upon in order to arrive at a final decision for remedial action or hazardous waste management.

The requirements governing the administrative record for a CERCLA response action are found in Section 113(k) of the CERCLA. Executive Order 12580 and CERCLA guidance documents provide that the administrative record is to be maintained by the regulated Federal facility (i.e., the DOE). The RCRA requirements pertaining to the record are found in 40 CFR 124.9 and 124.18. The State dangerous waste program requirements for the record are found in 173-303-840 WAC.

An administrative record will be established for each operable unit and TSD group and will contain all of the documents containing information considered in arriving at a record of decision or permit. When the

investigation process begins at each operable unit or when a permit action for a TSD unit (or group of units) is initiated, the administrative record file will be available to the public for review during normal business hours at the following location:

- Environmental Data Management Center
  2440 Stevens Center
  Room 1101
  Mail Stop: H6-08
  Richland, Washington 99352

Two additional indexes of the file will also be available to the public, during normal business hours, located as follows:

- EPA Region 10
  Superfund Administrative Record Center
  1200 Sixth Avenue
  Park Place Building
  Mail Stop: HW-113
  Seattle, Washington 98101

- Washington State Department of Ecology
  300 Desmond Drive
  P.O. Box 47600
  Lacey, Washington 98503

The DOE will compile and maintain the administrative record file at Richland, Washington, and provide an index of the documents to the EPA and Ecology for their respective files. At the time when the decisional document is signed, all documents forming the basis for selection of the final action(s) must have been placed in the administrative record file. All applicable documents will be available at the Administrative Record locations through one of the following methods: (1) Microfilm, (2) indexes listing documents available by request from the Richland Administrative Record office, (3) Internet access or (4) paper copies.

A hard copy of the administrative records will be maintained in the Richland administrative record file. After one year following the CERCLA record of decision or RCRA permit determination, the hard copies of administrative record documents issued up to those decision points may be removed from the administrative record file. Retrievable copies will be kept on file for a minimum of 10 years. The final decision documentation (i.e., CERCLA proposed plan and record of decision, and RCRA permit) will be maintained in hard copy through completion of all remedial actions or the term of the permit. Current versions of all general documents (e.g., guidance and applicable procedures) will be maintained in hard copy throughout the RI/FS process or through the term of the permit.

Certain types of documents will be included in the administrative record in all cases when considered applicable to one or more operable units or TSD groupings. These documents are shown in Table 9-3.

Table 9-3. Administrative Record Documents. (sheet 1 of 2)

Factual Information/Data (CERCLA)

Remedial investigation/feasibility study work plan
Remedial investigation Phase I report
Feasibility study Phase I and II report
Feasibility study Phase III report
Proposed plan
Abatement proposal
Interim response action proposal
Documentation of preliminary assessment/site investigation
Treatability study work plan and characterization plan
ATSDR health assessment
Preliminary natural resource survey (by natural resource trustee)
Procedures as specified in work plans
Supplemental work plan
Health assessment
Work plan change notice
Sample data results

Factual Information/Data (RCRA)

Closure Plan
Permit application (Part A and Part B)
Draft permit (or permit modification) or notice of intent to deny
Statement of basis or fact sheet, including all resources to documentation
RCRA facility assessment report
RCRA facility investigation/corrective measures study work plan
RCRA facility investigation report (preliminary and final)
Corrective measures study report (preliminary and final)
Interim measure proposals
Procedures as specified in work plans
Work plan change notice
Sample data results

Policy and Guidance

Memoranda on policy decision
Guidance documents
Supporting technical literature

Decision Documents

Record of Decision
Responsiveness summary
Letters of approval
Action memoranda
Waiver requests and regulatory agency responses
Final determination pursuant to dispute resolution

Table 9-3. Administrative Record Documents. (sheet 2 of 2)

Enforcement Documents

Hanford Federal Facility Agreement and Consent Order including Action Plan
Administrative orders
Consent decrees
Affidavits

Tribal Participation

Correspondence to or from the Tribes
Tribal comments
Responses to Tribal comments

Public Participation

Community relations plan
Correspondence to or from the public
Public notices
Public comments
Public meeting minutes
Public hearing transcripts
Responses to public comments
Fact sheets (public information bulletins)

For those which are designated as primary documents (see Table 9-1) the administrative record will include:

- All drafts submitted to the regulatory agencies for review and/or approval
- Any documents submitted by the non lead regulatory agency to the lead regulatory agency for inclusion in the Administrative Record
- Written comments from the lead regulatory agency to DOE (to include Notice of Deficiency on a Permit Application)
- DOE written responses to comments received from the lead regulatory agency
- Final document and any subsequent revisions
- Drafts which are submitted for public comment
- For public comment documents, the public comments and lead regulatory agency responses (if no comments are received, a letter from the lead regulatory agency shall be included documenting that fact).

For those which are designated as secondary documents (see Table 9-2), the administrative record will include:

- Final document and any subsequent revisions
- Any documents submitted by the non lead regulatory agency to the lead regulatory agency for inclusion in the Administrative Record
- Written comments from the lead regulatory agency to DOE, if provided
- DOE written responses to comments received from the lead regulatory agency.

Drafts of documents which are undergoing internal review within any party will not be included in the administrative record.

In addition to those documents listed in Table 9-3, the project managers for each party will determine which additional documents should be included in the administrative record. This may include:

- Validated sampling and analysis results
- Supporting technical studies and analyses
- Inspection reports and follow up responses.

The project managers will meet at least monthly, as described in Section 4.1. During these meetings, the project managers will decide which documents are appropriate for inclusion in the record. The DOE project

manager will then notify the administrative record staff of these documents to be added to the record.

For public participation documents listed on Table 9-3 the community relations staff for any party may transmit any document which they generate or receive directly to the administrative record staff, with a copy to each affected project manager.

Any documents that the regulatory agency has determined to be subject to an applicable privilege, and that are part of the administrative record, shall be maintained exclusively in confidential administrative record files of the appropriate parties until such time as enforcement action has been taken or the privilege has been waived.

The DOE will maintain an index of all documents entered into the administrative record. A current copy of the index will be distributed at least quarterly to each administrative record file and each public information repository, and will be available for inspection by any of the parties.

9.5 DISTRIBUTION OF DOCUMENTS AND CORRESPONDENCE

Documents and correspondence shall be sent to affected project managers, and the administrative record files as appropriate. Final primary and secondary documents and draft primary documents are sent to the affected project managers from DOE and the lead regulatory agency and the administrative record files, as appropriate.

> Note: Documents distributed to the public information repositories are specified in the Community Relations Plan.

9.6 DATA ACCESS AND DELIVERY REQUIREMENTS

9.6.1 Data Reporting Requirements

The project managers will provide a list of the nonlaboratory data collected at each operable unit, and TSD group/unit on behalf of their respective parties at the monthly unit managers meetings. This will allow each party to determine its data needs and to establish the format, quality, and timing for submitting the data.

9.6.2 Agreement Data

Ecology and EPA shall be granted access to all data that is relevant to work performed, or to be performed, under the Agreement. Access to Agreement related databases will be documented in the Agreement Appendix F document "Agreement Databases, Access Mechanisms, and Procedures" (includes all databases and the method of accessing each database). This document will also describe method(s) for regulatory access to DOE communications networks and system configurations to meet electronic transfer of data.

9.6.3 Validation

Data validation shall be performed in accordance with approved sampling and analysis plans and quality assurance project plans (QUAPjPs). Laboratory analytical data validation procedure shall incorporate Data Validation Guidelines for Contract Laboratory Program Organic Analyses and Data

Validation Guidelines for Contract Laboratory Program Inorganic Analyses. The DOE shall make available to EPA and Ecology validated and unvalidated laboratory analytical data. Any document produced by any of the three parties which contains unvalidated or otherwise caveated data shall be marked as such.

The lead regulatory agency shall be notified of the availability of laboratory analytical data via electronic mail, facsimile transmission, or other means as agreed by the parties involved. Notification shall occur within one week of data entry and shall include the following information:

- date(s) of collection
- unit(s) where data collected
- type of data, e.g., ground water
- location of where data is stored, e.g., database
- unique identifier given to each piece of data, e.g., sample ID.

9.6.4 Non-Electronic Data Reporting

For data not available in electronic format, DOE shall meet the data reporting requirements by providing a summary list of new data at the project managers meetings, or as otherwise requested by the lead regulatory agency. This list will include, at a minimum, the information described in the preceding paragraph addressing notification. The lead regulatory agency shall determine on a case-by-case basis if data warrants a more detailed presentation or analysis. This reporting method shall also be used for field screening data. Field screening data shall be accompanied by maps or sketches with sufficient detail to determine where the data was obtained.

The information shall be submitted to the requesting party within ten days of receipt of the lead regulatory agency's written request, or as otherwise agreed to by the parties involved. In addition, other reporting requirements may be specifically required by the RCRA permit, RCRA closure plans or work plans.

9.6.5 Electronic Data Access Requirements

EPA and Ecology shall have direct read, retrieve, and transfer access to all relevant electronic data and databases. All validated data will be entered into the selected database in accordance with the Data Delivery Schedules in Section 9.6.6. Unvalidated data will be available within 7 days after receipt from the laboratories. Electronic access to Hanford data will be provided to EPA, Ecology and their respective contractor staff when:

- The computer network infrastructure is available to support user access (for systems that cannot support direct access data shall be provided through redundant systems or through copies of data stored in other systems), and

- The database system is accessible and utilized by Hanford personnel doing Agreement related work.

9.6.6 Data Delivery Schedules

The level of quality assurance for each characterization sample shall

meet the requirements of Agreement Article XXXI (Quality Assurance) and shall depend on the specified Data Quality Objectives (DQO) as stated in the specific sampling and analysis plans and quality assurance project plans (QAPjPs). Laboratory analysis and quality assurance documentation, including validation, and transmittal to the regulators, shall be limited to the following schedule:

- Transuranic and hot cell samples - 136 days annual average, but not to exceed 176 days
- Single-shell tank samples - 216 days
- Low-level and mixed waste (up to 10 mr/hour) samples - 111 days annual average, but not to exceed 126 days
- Nonradioactive waste samples - 86 days.

All schedules in this section are effective beginning with the date of individual sampling activities. For unique circumstances, a schedule other than that specified in this section can be agreed to by DOE and the lead regulatory agency. The DOE will integrate all of the data discussed in this section into the appropriate databases and reports.

9.6.7 Other Data Reporting Requirements

The Tri-Party Agreement Strategic Data Management Plan (reference M-35-02) will identify what types of information the DOE will index and a schedule to accomplish the indexing. The indexes will be available to all parties. Depending on the information, the regulators may request the information either electronically and/or by hardcopy. The hardcopy information shall be provided by DOE within 10 days after receipt of written request.

9.6.8 EPA and Ecology Data

Analytical data that is developed by EPA and/or Ecology and is of value to the three parties will be made available in the appropriate media to the three parties. The regulator(s) developing the analytical data shall provide the data in a format suitable for data storage and retrieval. Other data or information requests will be reviewed and handled on a 'case-by-case' basis directly by the parties involved.

9.6.9 Data Management Agreements

The Data Management project manager meeting will provide the forum for addressing data management needs and issues. Meetings will be held with EPA and Ecology at a frequency agreed to by the parties.

10.0 COMMUNITY RELATIONS/PUBLIC INVOLVEMENT

10.1 INTRODUCTION

This section describes, in general, the way in which the public will be involved with the implementation of this action plan. The CERCLA, as amended, requires that a community relations plan (CRP) be approved by the EPA prior to initiation of field work related to an RI/FS. The parties have agreed that the CRP is also the proper mechanism to address the public involvement process for all of the RCRA activity to be conducted pursuant to this action plan. In this way, a single document will specify how the public will be involved in these processes.

A CRP is the overall plan for community relations and public involvement. The following sections highlight key elements of the CRP.

10.2 PUBLIC INFORMATION REPOSITORIES

Information will be readily available to the public to ensure meaningful participation. One mechanism for accomplishing this goal is the establishment of public information repositories at major population centers. The locations of the repositories are as follows:

- Government Publications Division
  Suzzallo Library, University of Washington
  Box 352900
  Seattle, Washington 98195-2900
  (206) 543-4664

- USDOE Public Reading Room
  Washington State University, Tri-Cities
  Consolidated Information Center, Room 101-L
  2770 University Drive
  Richland, Washington 99352
  (509) 372-7443

- Portland State University
  Branford Price Millar Library
  934 SW Harrison
  P.O. Box 1151
  Portland, Oregon 97207-1151
  (503) 725-4126

- Gonzaga University
  Foley Center
  E. 502 Boone
  Spokane, Washington 99258-0001
  (509) 323-3834, extension 3844

All applicable documents (see listing of applicable documents in the CRP) will be available at the Public Information Repository locations through one of the following methods: (1) Microfilm, (2) indexes listing documents available by request from the Richland Administrative Record office, (3) Internet access, or (4) paper copies. In addition, copies of drafts when submitted for public comment will be placed in the repositories. Any additional information or documents will be placed in the repositories as deemed necessary by the assigned executive managers. In addition to review of documents at the repositories, the public may also review the administrative record files during normal working hours (see Section 9.4 for discussion and location of administrative records).

10.3 MAILING LISTS AND NEWSLETTER

A Hanford Site mailing list(s) will be maintained by the DOE for use by all three agencies to ensure consistency. The EPA, Ecology, or the DOE will periodically distribute information in the form of a direct mailing to those persons on the Hanford Site mailing list(s). Any person may be placed on the Hanford Site mailing list(s) by contacting any of the community relations contacts shown in Appendix E.

A direct mailing will usually be in the form of a public information newsletter. The newsletter is a summary of the status of completed, ongoing, or upcoming activities. In some instances, this newsletter may be used in conjunction with a public notice and/or advertisement (newspaper or radio) to announce an event such as a public meeting, a public hearing, or a formal comment period on a certain document.

10.4 PRESS RELEASES

Any party issuing a formal press release to the media regarding any of the work required by this Agreement shall, whenever practicable, advise the other parties of such press release and the contents thereof, at least 48 hours before the issuance of such a press release.

10.5 PUBLIC MEETINGS

10.5.1 Hanford Public Meetings

In an effort to provide broad and timely perspectives to the public on the Hanford cleanup priorities and budget decisions, the Tri-Parties will conduct public information meetings. At least one public meeting(s) will be held in the spring to carry out the commitment to involve the public and stakeholders in the DOE budget formulation as reflected in TPA paragraphs 148 and 149. An optional meeting in the fall may be conducted to further discuss and evaluate budget issues. At these meetings, the Tri-Parties will discuss the impact of budget decisions and take public comment and questions on cleanup priorities, as well as outline any changes to cleanup objectives and decisions at Hanford. One of the meetings may be conducted in conjunction with the Hanford Advisory Board. Other meetings will be conducted at public meeting facilities (when available) in key cities in Washington and Oregon. In an effort to be more efficient and effective, these public meetings are encouraged to use innovative techniques to encourage public participation.

10.5.2 Other Public Meetings

Additional public meetings on either CERCLA or RCRA matters will be scheduled on an as-needed basis, by the EPA or Ecology. Situations involving complex issues or a high level of public interest will be reasons to schedule separate public meetings.

When appropriate, public meetings will be scheduled approximately halfway through the public comment period. All public comments, along with the lead regulatory agency's response to comments, will be placed in the administrative record and added to the document index.

10.5.3 Public Notification, Location, and Records

The DOE, at the request of the EPA and/or Ecology, will arrange for all public meetings by means of a public notice in a newspaper of regional circulation. When appropriate, any additional cost-efficient means of notification may be used in the area where the meeting is to be held. The DOE will also distribute a direct mail notice to all persons on the Hanford Site mailing list(s). All such notices shall be made 2 to 3 weeks prior to the date of the public meeting. In addition, at least 30 days prior to the beginning of a comment period, an informal contact will be made to regional stakeholders verifying their interest and participation in a Tri-Party Agreement public involvement topic. Public meetings (formal or informal) will be scheduled, to the extent practicable, to coincide with similar topics due for public comment or other significant stakeholder related events.

The location of any public meeting will be decided in each case by the EPA and/or Ecology. In some cases, the agencies may decide to hold an additional public meeting on a subsequent day at another location.

Upon request by the EPA or Ecology, the DOE will provide an individual to accurately record the events and dialogue at each public meeting. This individual will provide a written meeting summary of the public meeting for review to the requesting agency and the DOE project managers, and the community relations contacts within 14 days following the meeting. The meeting summaries will then be added to the public information repository indexes. Any individual may obtain a copy of the meeting summaries by submitting a request, in writing, to any of the community relations contacts listed in Appendix E.

10.6 PUBLIC COMMENT OPPORTUNITIES

The EPA and/or Ecology will make the documents as listed in this section available for public comment. These documents, during the appropriate public comment period, will be placed in the public information repositories. They may also be reviewed at the EPA Region 10 office in Richland, Washington; the Ecology office in Lacey, Washington; or the DOE office in Richland, Washington, by contacting any of the community relations contacts listed in Appendix E.

Copies of all public comments received and the agencies' responses to comments will become part of the administrative record and will be added to the public information repository indexes. Additionally, copies of all public comments and agency responses will be made available to any person upon written request to any of the community relations contacts listed in Appendix E.

The public notice for availability of these documents for comment will be published in a regional newspaper in the areas of significant public interest and through the direct mailing list (see Section 10.3).

The documents to be made available for public comment are as follows.

- Significant Changes to the Agreement. One of the more significant opportunities for public comments pertains to changes made to the Agreement or its Action Plan. Changes to the Agreement or its Action Plan which are significant, as defined by the CRP, shall be made available for public comment for a period of 45 days.

- Feasibility Study Phase III Report/Proposed Plan or Corrective Measure Study Report. Either an FS Phase III report/proposed plan (CERCLA) or a CMS report (RCRA) will be prepared for each operable unit. When the FS Phase III report and the proposed plan for remedy are finalized, the lead regulatory agency will issue a public notice of opportunity to comment on the documents. If the operable unit is being managed under the RPP authority, rather than CERCLA, the RCRA CMS report will be made available for comment as part of the draft permit modification package. The comment period will be 30 days. There are currently no specific requirements for public comment on the CMS report, but the parties consider this report to be the functional equivalent of the FS Phase III report and the proposed plan and, therefore, will make the CMS report available for public comment in the same manner.

- Draft Joint Dangerous Waste/Resource Conservation and Recovery Act Permits (for Treatment, Storage, and Disposal Units). The permit and associated modifications (see Section 6.2) for either new or continued operation of TSD groups/units or for postclosure care of TSD units will be made available for public comment in accordance with 173-303-840 WAC and 40 CFR 124.10. The comment period will be 45 days.

- Closure Plans (for Interim Status Treatment, Storage, and Disposal Units). All closure plans for TSD units (see Section 6.3) that will be closed prior to or instead of issuance of a permit will be made available for public comment, in accordance with 173-303-840 WAC. The comment period will be 45 days.

- Interim Response Actions and Interim Measures. In any case where the lead regulatory agency believes that a release from a unit meets the criteria for an IRA or IM, as described in Section 7.2.4, it shall direct the DOE to submit either an IRA proposal or an IM proposal for remedy selection. Prior to approval, the lead regulatory agency will make the proposed remedy selection available for public comment for a period of 15 or 30 days.

- RCRA Section 3008(h) Orders and RCRA 7003 Orders. The EPA will propose the selected corrective action remedy to be performed under either RCRA 3008(h) or RCRA 7003 and make it available for public comment prior to final approval. The comment period for 3008(h) orders will be 30 days and the comment period for 7003 orders will be 15 days.

- Community Relations Plan. Any major revisions to the CRP will be subject to public comment for a period of 30 days. The EPA and Ecology will determine whether revisions are major and subject to public comment.

10.7 PUBLIC HEARING OPPORTUNITIES

The draft permit and all modifications are subject to public hearings upon request. A public hearing must be held if any person requests, in writing, that one be held. The request must state the nature of the issues to be raised at the hearing and must include a notice of opposition to the draft permit, in accordance with 173-303-840 WAC and 40 CFR 124.11 and 124.12.

The DOE will, upon request, assist the EPA and Ecology in the same manner as with public meetings, as previously described. The public notice for any public hearing will be made by the DOE at least 30 days prior to the date of the hearing. Transcripts of the public hearing will be distributed in the same manner as those for the public meetings. Any individual may obtain a copy of the transcript by submitting a request, in writing, to any of the community relations contacts listed in Appendix E.

A public hearing will be held in the locality from which the majority of requests for the hearing was generated. In some cases, a public hearing may be held at more than one location, at the discretion of the EPA and Ecology.

10.8 TECHNICAL ASSISTANCE GRANTS

The provision for Federal technical assistance grants (TAG) is found in Section 117(e) of CERCLA. The EPA will be responsible for administering any Federal TAG that is applied for in conjunction with the Hanford Site. The TAG is a mechanism by which the EPA provides reimbursement to the public for a level of effort spent on CERCLA document review. In this way, the public can be directly involved in the review process of various CERCLA documents in more depth than otherwise might be possible. Information on TAGs can be obtained by contacting:

Technical Assistance Grant Coordinator
U.S. Environmental Protection Agency
1200 Sixth Avenue, ECO-081
Seattle, Washington 98101
(206) 553-6919

10.9 WASHINGTON STATE PUBLIC PARTICIPATION GRANTS

The Model Toxics Control Act, Chapter 70.105D RCW, and 173-321 WAC, provide for public participation grants to persons, and not-for-profit public interest organizations. The primary purpose of these grants is facilitating the active participation of persons and organizations in the investigation and remedying of releases or threatened releases of a hazardous substance. Additional information on this program may be obtained by contacting:

Solid Waste Financial Assistance Program
Washington Department of Ecology
P.O. Box 47600
Olympia, Washington 98504-7600
(360) 407-6061

10.10 INDIAN TRIBES

The parties recognize that several Northwest Indian tribes have treaty-reserved rights to resources outside their reservation boundaries. In some instances, these resources are either located on the Hanford Reservation or could be affected by activities on the Hanford Reservation. Treaty-reserved rights give these tribes a governmental interest in waste management and environmental restoration activities at Hanford.

DOE and EPA also recognize that, as agencies of the federal government, they have a trust responsibility to American Indian Tribes to consult with the tribes and whenever possible, protect tribal resources which may be affected by agency decision-making. Moreover, DOE, EPA, and the State of Washington have adopted policies which recognize tribal sovereignty and commit to a government-to-government relationship with the tribes.

Given these responsibilities and policies, the parties recognize the unique position of the tribes and the distinction between the rights and responsibilities of the tribes and those of the public. Accordingly, the three parties will seek to facilitate tribal participation in Agreement decision-making at the government-to-government level. Among actions to be taken in this regard are:

1. To involve these Tribes in the hazardous waste cleanup and management processes at the Hanford Site, the parties will hold special briefings for all interested Tribes periodically on major issues that have arisen and/or may arise. Such briefings will include status reports of the significant projects and will be consistent with the methods used to inform and respond to questions of appointed and elected officials, and other governments, regarding ongoing CERCLA and RCRA activities. These briefings may be in writing or in person and may be conducted by either the EPA, Ecology, or the DOE, as appropriate. Notice will be provided to all Tribes in the Hanford region. These briefings and the procedures for determining which Tribes will be briefed are further described in Section 1.0 of the CRP.

2. The DOE will provide copies of any of the documents that are sent to the public information repositories directly to the Tribes upon request. The procedure for determining which documents will be sent is described in Section 1.0 of the CRP. The public information repositories are further discussed in Section 10.2 and in the CRP. The specific list of documents that will be sent directly to each repository is included in the CRP. As discussed in Section 10.2, this may include copies of drafts submitted for public comment. Any comments on these documents must be received by the lead regulatory agency within the time period allowed for public comment. The length of each comment period is specified in Section 10.6, and the specific comment period for each document will be noted in the public notice for comment.

3. In addition to item 2 above, DOE will provide copies of key documents and other pertinent material to the tribes at the time they are provided to EPA and Ecology for review. Such documents include those identified in tables 9-1 and 9-2 of this action plan, but will also include other technical plans, studies and reports related to this Agreement. Other pertinent material includes, but is not limited to, draft change packages, Agreements In Principle between the three parties, and budget information. For large documents containing supporting technical information (e.g. laboratory data packages), DOE will only provide copies of the transmittal letter to the tribes. The document will then be provided upon request. DOE will periodically consult with the tribes to ensure that they are receiving the appropriate documents and material in accordance with this paragraph.

10.11 CITIZEN SUIT PROVISIONS

Statutory provision for citizen suits under CERCLA is found in Section 310 of CERCLA, as amended. Statutory provision for citizen suits under RCRA is found in RCRA Section 7002. The application of these provisions can be found at Articles X and XXI of the Agreement.

11.0 WORK SCHEDULE, WORK PLANS, AND ASSOCIATED REPORTS

11.1 INTRODUCTION

This section describes the format and content of the work schedule, supporting plans and reports, and the process for updates and other revisions. This section also identifies those primary documents that contain other schedules that directly support the work schedule.

The work schedule is contained in Appendix D. It includes the major and interim milestones and associated target dates that support the accomplishment of the milestones described in Section 2.0. Both major and interim milestones are enforceable under the Agreement. Dates specified as target dates are incorporated in the work schedule for the purpose of tracking progress toward meeting milestones, and are not enforceable. Plans and reports prepared in support of Appendix D (milestone) requirements will specify more detailed work elements and interfaces between Hanford site programs and projects over time (See Sections 11.4 through 11.7).

Milestones and target dates will be incorporated into the Agreement via the change process defined in Section 12.0, upon issuance of the approved work plan (including Project Management (work) Plan), or report, and incorporated into the work schedule as part of the update process. The work schedule will indicate actions required within each major milestone heading, and at each operable unit identified in Appendix C, or TSD group identified in Appendix B. Such actions include, but are not limited to, the following:

- Permitting activities
- Closures
- Groundwater monitoring
- Achieving compliance with interim status requirements
- Ceasing disposal of contaminated liquids to the soil column
- Investigations and characterization
- Remedial and corrective actions
- Technology improvements
- Acquisition of new facilities, and/or modification of facilities as necessary, e.g., to enhance operations and eliminate long-term storage
- Land disposal restriction requirements

11.2 WORK SCHEDULE

A listing of major and interim milestones, and associated target dates, current as of the last Agreement update, is provided in Appendix D.

11.3 WORK SCHEDULE UPDATES

The work schedule will be updated as necessary in order that printed copies of the Agreement remain reasonably current. Work schedule changes (see Section 12.0 for formal change control system) will be incorporated at this time. Each update will be performed as agreed by the three parties.

The work schedule may also be updated for clarity consistent with previously approved changes made in accordance with Section 12.2. Such updates do not require approval signatures and are not subject to the public comment process.

11.4 DOE BASELINE CHANGE CONTROL DOCUMENTATION, MULTI YEAR WORK PLANS AND SYSTEMS ENGINEERING CONTROL DOCUMENTS

Unless otherwise agreed to by the Parties, DOE Baseline Change Control documentation, Multi Year Work Plans (MYWP) and sitewide systems engineering control documents, shall be consistent with this Agreement, e.g., such plans and documents shall describe and require all work necessary to maintain or achieve compliance with the RCRA, CERCLA, and the requirements of this Agreement. At the time such plans/control documents are submitted they shall describe in detail work to be done, e.g., project start and completion dates, interfaces between programs and projects, and performance standards to be met. Such plans/control documents shall include a DOE determination that they are consistent with the requirements of this Agreement.

11.5 WASTE/MATERIAL STREAM PROJECT MANAGEMENT (WORK) PLANS PREPARED UNDER AGREEMENT MILESTONE SERIES M-90-00, M-91-00, AND M-92-00

Waste/Material Stream Project Management (Work) Plans (PMP) described here serve as the key project defining document consistent with Project Hanford and the requirements of this Agreement. As such, these PMPs will detail project objectives, work schedule(s), and expected outputs, integration with other programs and projects and project management alternatives consistent with established Agreement and other project constraints.

PMPs prepared under Agreement/milestone series M-90-00, M-91-00 and M-92-00, will (with the exceptions noted below) be prepared, reviewed, and approved as primary documents to the extent they deal with waste streams regulated by Ecology and/or EPA (non-regulated nuclear materials are identified with the milestone prefix "MX", and are established pursuant to Article XLIX, and paragraph 155). At the time PMPs are submitted for approval, they shall describe in detail the work to be done and performance standards to be met. They shall also include critical path (implementation) schedule(s) with start and completion dates.

While the lead regulatory agency may review and comment on all elements of PMPs submitted pursuant to milestone series M-90-00, M-91-00, and M-92-00, neither Ecology nor EPA shall have approval authority for the PMP Funding Profile element, nor overall approval authority for Project Schedule and Critical Path Analysis, and Change Management elements. These elements shall be incorporated within the PMP as a distinct section or appendix. The Funding Profile shall include a life-cycle projection of annual funding required to accomplish project scope in accordance with the top-level WBS and schedule. The parties also agree that lead regulatory agency review and approval of PMP Schedule and Critical Path Analysis, and Change Management elements is

required for the purpose of ensuring consistency with Agreement milestones. PMPs submitted to the lead regulatory agency under this subsection which deal with waste streams regulated by Ecology and/or EPA shall contain following elements:

- Project Goals and Objectives: a brief and concise statement documenting project objectives and requirements.

- Background: A description of key history, considerations, actions, and decisions leading to establishment of the project schedule. Elements will include the following:

  (i) Physical information covering each identifiably different waste stream component (e.g., current inventories, component generation projections and component characterization data);

  (ii) Discussion of current commercial disposition activities if any;

  (iii) A discussion of component and stream stability, and known and suspected instances of contaminant migration;

  (iv) A summary of (and appropriate citation for) any earlier evaluation of management and disposition options for each waste stream; and,

  (v) A discussion of specific applicable regulatory requirements, and expected impacts to the project.

- Project Scope: A concise definition of the project including:

  (i) A description of facility(s)/unit(s) clearly delineating the physical boundaries of the project;

  (ii) A description of the planned approach (i.e., actions) clearly delineating the action boundaries of the project;

  (iii) A top-level work breakdown structure (WBS) with an appended WBS dictionary which includes a brief description of each WBS element; and,

  (iv) Projected TSD capability relevant to management and disposition of each component. Capability information will include performance and specification requirements and projected capacity needs.

- Project Constraints, including established Agreement milestones: A concise description of externally established schedule requirements (e.g., performance specifications, specified start date(s), finish date(s), or logical relationship) with an identification of their source(s) for the project.

- Schedule and Critical Path Analysis: A logic-tied life-cycle schedule including major and interim milestones for the top-level work breakdown structure (WBS) and the project critical path. This is typically displayed as a milestone and critical path item listing and as an appended GANT chart.

- Key Deliverables/Products: A description of key deliverables and products resulting from each top-level WBS element including critical performance parameters.

- Performance Measurement: Documentation and description of specific performance measures (e.g. milestones and accomplishments) necessary to assess progress toward achieving project and management plan objectives.

- Project Control: Identification of requirements and a summary description of the approach for each of the following:

  (i) Project interface control (i.e., Site-Wide Systems Engineering); and,

  (ii) Reporting and notification requirements and processes.

- Change Management: Identification of change control requirements (e.g., thresholds). To include a summary description of the change control process, participants including their roles and responsibilities, and documentation.

Draft Agreement change requests, proposed for approval will be referenced, and attached as an appendix to the PMP. With the exception of Tank Waste Remediation System (TWRS) projects governed by Section 11.8 of this Agreement, each PMP shall identify completion dates for major tasks and deliverables as interim milestones. Milestones shall be set in a manner which fits the requirements of the work to be accomplished, with at least one milestone every twelve months, unless otherwise agreed to by the project managers.

Schedules may be constructed in a manner that allows tasks or deliverables which require or follow regulatory agency review to be due a fixed number of days after approval, rather than on a fixed date. The project managers will rely primarily on project schedules (e.g., reported progress and critical path analysis) for tracking purposes.

11.6 OTHER WORK PLANS AND SUPPORTING SCHEDULES

Unless otherwise specified, other workplans, including operable unit (OU) workplans prepared under the Hanford Past-Practice Investigation Strategy, shall be prepared, reviewed and approved as primary documents. At the time work plans are submitted for approval they shall describe in detail the work to be done and include the performance standards to be met. They shall also include an implementation schedule with start and completion dates. The work plan schedule shall identify completion dates for major tasks and deliverables as interim milestones. Milestones shall be set in a manner which fits the requirements of the work to be accomplished, with at least one milestone every twelve months, unless otherwise agreed to by the project managers. A change

package shall be submitted with the work plan which identifies the interim milestones.

Schedules may be constructed in a manner that allows tasks or deliverables which require or follow regulatory agency review and approval to be due a fixed number of days after approval, rather than on a fixed date. The project managers will rely primarily on the supporting schedules for tracking progress.

Required work plans include:

- RI/FS work plan
- Remedial action work plan
- Closure plan
- RFI/CMS work plan
- CMI plan
- LFI work plan
- ERA work plans/EECA's.

ERA work plans/EECA's are not to be prepared, reviewed and approved as primary documents, but are subject to approval in accordance with Section 7.2.4 of the Action Plan. Additional detailed schedules, beyond those contained in the above plans, may be needed as agreed to by the assigned project managers to provide more definitive schedules to track progress. These may be part of other plans or may be stand-alone schedules.

In addition to the work plans previously described, other work plans may be developed for special situations at the request of the lead regulatory agency. These work plans will be considered primary documents as discussed in Section 9.1, and are subject to all work plan requirements.

11.7 SUPPORTING TECHNICAL PLANS AND PROCEDURES

In addition to the requirements as specified in this Agreement, supporting technical plans and procedures may be developed by DOE. They will be reviewed for approval by EPA and Ecology as primary documents or reviewed as secondary documents as determined by EPA and Ecology. In the event that such supporting technical plans and procedures apply only to a specific operable unit, project, TSD group/unit or milestone the lead regulatory agency will provide the necessary review and approval. The DOE may submit such plans or procedures at any time, without request of the regulatory agencies. The EPA or Ecology may also request that specific plans or procedures be developed or modified by DOE, consistent with Article XXX of the Agreement. These technical plans and procedures shall pertain to specific compliance and cleanup activities conducted pursuant to this Agreement and shall provide a detailed description of how certain requirements will be implemented at the Hanford Site. DOE shall comply with the most recent approved versions of these technical plans and procedures and those secondary documents which are in effect.

Appendix F contains a listing of current supporting technical plans and procedures and their respective status. Changes to Appendix F will be accomplished in accordance with Section 12.0. Appendix F will be updated annually in conjunction with the annual update to the Work Schedule.

11.8 OFFICE OF RIVER PROTECTION CRITICAL PATH PROCESS

Tank waste remediation schedules and associated work directives will be established using a critical path process as described in this section. The Office of River Protection, River Protection Project will be established and managed as an integrated system and shall include all activities associated with waste characterization, retrieval/closure, pretreatment, treatment of high-level and low-level tank waste, acquisition of new tanks, and the multi-purpose storage complex. DOE will develop detailed operating procedures and implement the critical path milestone management system on a trial basis, in April 2000, with full implementation by February 28, 2001.

A. For the purposes of critical path analysis, negotiated dates for completion of single-shell tank waste retrieval, the final closure of single-shell tank farms, and Agreement milestone compliance dates for the tank waste treatment complex including (i) start of construction, (ii) hot commissioning, (iii) commercial operations, (iv) completion of Phase I tank waste processing, and (v) completion of HLW and LAW treatment shall be designated as program endpoints. Project critical path management schedules shall be established in part from, and shall be consistent with these program endpoints.

B. Note: Text of this Paragraph B deleted by the Ecology Director's Determination dated March 29, 2000.

C. On a semi-annual basis, the integrated schedule shall be updated by the project managers or their designees and the critical path shall be re-evaluated. Updates shall be based on current Site Management System (SMS) information. Additional events falling on the critical path shall be designated as interim milestones. The integrated management schedule shall identify schedule float for each task. Schedule float shall be defined as the amount of time available before an activity becomes a critical path activity. Any activity found to be no longer on the critical path shall revert to target date status.

D. The Department of Energy shall have the ability to reschedule any activity associated with a target date as necessary to efficiently manage the project, provided such movement shall not adversely affect the critical path or the program endpoints. Project managers shall be advised in advance in writing of any such changes.

E. Changes to any activity or schedule which affects the critical path, a major or interim milestone, or program endpoints must be requested: a) in accordance with Section 12.0 of the Action Plan, and b) well enough in advance to allow for continued compliance should the request be disapproved.

F. Based on the information in the monthly SMS report, the Department of Energy shall take all appropriate actions to correct schedule slips in critical path activities.

12.0 CHANGES TO THE AGREEMENT

12.1 INTRODUCTION

This section provides the process for changing elements of the Agreement, the Action Plan and its appendices. All changes processed using this section shall be subject to the applicable requirements of Section 10.0 Community Relations/Public Involvement.

12.2 AUTHORITY TO APPROVE CHANGES

The appropriate authority level for approval of a change is based on the content of the change as follows.

- Class I Change--A Class I change is a change to parts one through five of this Agreement or a major milestone as defined in Section 2.0. A Class I change requires the approval of the signatories or their successors as shown in Section 14.0.

- Class II Change--A Class II change is any change to the Action Plan or its appendices except as specified for Class I or Class III changes. A Class II change requires the approval of the DOE and affected lead regulatory agency executive managers. Changes made to lead regulatory agency lead designations only may be approved by the EPA and Ecology executive managers.

- Class III Change--A Class III change is a change to a target date in the work schedule (Appendix D) or a supporting schedule that does not impact an interim milestone. A Class III change requires the approval of the DOE and lead regulatory agency project managers. It is not the intent of the parties to revise target dates because work is slightly behind or ahead of schedule. Such schedule deviations will be reflected through the reporting of work schedule status. The use of the change process for revising target dates is for use by the parties to delete, add, or accelerate or defer a target date (by more than 60 days).

12.3 FORMAL CHANGE CONTROL PROCESS

12.3.1 Change Control Form

All changes shall be processed using the change control form included as Figure 12-1. The following describes the process in accordance with the circled numbers shown in Figure 12-1.

① Obtain and enter a "change number." The DOE shall maintain a log of all changes by number and title, along with a file copy of the change. An individual will be assigned responsibility for maintaining the change file and will be responsible for assigning change numbers. The change number can be obtained any time during the change process, even after the change is approved.

Change Number ①	**Federal Facility Agreement and Consent Order** **Change Control Form** Do not use blue ink. Type or print using black ink.	Date ③
Originator ②	Phone	
Class of Change [ ] I - Signatories	[ ] II - Executive Manager	④ [ ] III - Project Manager
Change Title ⑤		
Description/Justification of Change ⑥		
Impact of Change ⑦		
Affected Documents ⑧		
Approvals ⑨ _____ _____ ___ Approved ___ Disapproved DOE Date _____ _____ ___ Approved ___ Disapproved EPA Date _____ _____ ___ Approved ___ Disapproved Ecology Date		⑩

Figure 12-1. Change Control Sheet.

Contact Ron Morrison for Download Version

② Enter the name of the originator or the requestor.

③ Enter the date the change was initiated.

④ Place an "x" in the box for the appropriate class of change per the criteria identified under Section 12.2.

⑤ Enter a short title for the change, which will be used primarily as a cross-reference on the change log.

⑥ Provide a description of the change, along with justification as to why the change should be made. Use an attached sheet of paper if additional space is required.

⑦ Explain what is impacted by this change.

⑧ List all documents that will have to be revised because of the change.

⑨ Obtain approval signatures based on the class of change assigned. Approval via telephone is acceptable, but must be followed up with a signature as soon as possible thereafter.

⑩ This space is available for special notes, comments, or other signatures as required.

Backup information should be attached as necessary to support the change. Once approved, the change is considered implemented. Affected documents (e.g., work schedule) need not be updated until their next scheduled update.

12.3.2 Request for Extension

Any DOE request for extension shall be submitted in writing and shall specify:

A. The timetable and deadline or schedule for which the extension is sought;

B. The length of the extension sought;

C. The good cause for the extension; and

D. Any related time table and deadline or schedule that would be affected if the extension were granted.

12.3.3 Response to Requests for Modifications

Within 14 days of receipt of a signed change control form requesting modification of a milestone time table and deadline or other enforceable requirement, each affected Party shall respond by either approving or disapproving the request in writing. If any affected party fails to respond within the 14 day period for review, it shall be deemed to constitute disapproval of the request. If a Party disapproves a requested modification, it shall explain the basis for the disapproval in writing.

12.3.4 Transmittal and Responses to Requests for modification

A signed Class I change control form and/or response may be transmitted by mail or overnight express delivery to any Party's normal business location addressed to the responsible signatory with copy to the responsible project manager, return receipt requested, or by hand delivery to the responsible signatory.

A signed Class II change control form and/or response may be transmitted by mail or overnight express delivery to any Party's normal business location addressed to the responsible Executive Manager with copy to the responsible project manager, return receipt requested, or by hand delivery to the responsible executive manager.

A signed Class III change control form and/or response may be transmitted by mail or overnight express delivery to any Party's normal business location addressed to the responsible project manager, return receipt requested, or by hand delivery to the responsible project manager.

Transmittal of signed change control forms and/or responses may also be made by electronic facsimile, but only if on the day of transmittal the transmitting Party notifies the intended recipient(s) by telephone of such transmittal. The recipient's agency must acknowledge receipt by return facsimile. Documents transmitted by electronic facsimile that are illegible, or that are not received in their entirety, shall not be deemed received.

12.4 MINOR FIELD CHANGES

To ensure efficient and timely completion of tasks, minor field changes can be made by the person in charge of the particular activity in the field. Minor field changes are those that have no adverse effect on the technical adequacy of the job or the work schedule. Such changes will be documented in the daily log books that are maintained in the field.

13.0 LIQUID EFFLUENT TREATMENT AND DISPOSAL

13.1 LIQUID EFFLUENT DISCHARGE RESTRICTIONS

13.1.1 Introduction

This section addresses requirements for management of restrictions for discharge of liquid effluents to the soil column at Hanford. These managerial requirements are the result, in part, of EPA's and Ecology's reviews of the Liquid Effluent Study (LES) that was submitted by DOE in August 1990. The LES included information on the 33 Phase I and Phase II liquid effluent streams and was conducted outside the scope of this Agreement. However, the parties agreed that information obtained through the LES would be considered new information (see Paragraph 136 of the Agreement) and that such new information could form the basis for reevaluation of the liquid discharge milestones in the Agreement. The liquid effluent discharge milestones are covered in M-17-00.

The purpose of this section is to describe the process which will be followed for establishing additional milestones related to the operation, treatment, and disposal of all 33 Phase I and Phase II liquid effluent discharges to the soil column and to explain the general guidelines to be followed in the establishment of additional milestones. The initial requirements and restrictions contained herein address the seven streams identified by EPA as high priority, as well as five streams associated with the PUREX facility. The parties agree that such requirements and restrictions are necessary to provide near-term assurance that all reasonable steps are being taken to minimize environmental degradation. The long-term solutions are to establish stream specific milestones leading to establishment of treatment processes or ceasing discharges altogether and finally, to regulate any remaining discharges to the soil column through provisions of the State of Washington Waste Discharge Permit Program (WAC-173-216 or, if applicable, WAC-173-218).

13.1.2 State Waste Discharge Permits

The Parties agree that those waste water streams currently discharged to the soil column or any future waste water streams (excluding discharges that are exempt from permitting under Section 121 of CERCLA) discharged to the soil column, which affect groundwater or which have the potential to affect groundwater, shall be subject to permitting under RCW 90.48.160, WAC 173-216, or if applicable, WAC 173-218. While the administration of these provisions of state law will be conducted outside this Agreement, Ecology intends to maintain consistency with this Agreement in implementing the state water quality program at the Hanford Site. Ecology and DOE agree to negotiate a separate agreement by September 1991 or such later date as the Parties agree upon, which will provide a schedule for obtaining permits and all necessary actions leading to obtaining such permits pursuant to these provisions of state law at the Hanford Site. While DOE is agreeing to Ecology's authority to implement a permit program under RCW 90.48.160 and WAC Chapter 173-216 for liquid effluents discharged to the soil column which affect or have the potential to affect groundwater at the Hanford Site, DOE reserves any rights and defenses under state and federal law in any enforcement or permitting activity including the right to appeal such permits to the appropriate tribunal and to raise any objection whatsoever to such permits except that DOE will not challenge Ecology's authority to administer the WAC Chapter 173-216

permit program at the Hanford Site.

13.1.3 Liquid Effluent Discharge Milestones and Negotiations

The Parties will also negotiate additional interim and final milestones to be included in this Agreement addressing, without limitation, waste reduction, interim and final treatment, and/or termination of the 33 Phase I and Phase II streams. These negotiations will be completed by September 1991. Negotiated milestones will be included in the 1992 Annual Update to the Work Schedule (Appendix D).

The Parties are agreeing now to the addition of certain interim milestones (M-17-11, M-17-12, and M-17-13) in Milestone M-17-00. These milestone requirements relate to interim of final remedial actions which will be taken at Operable Units affected by those discharges. The specific descriptions of these milestone requirements are set forth in Appendix D of this Agreement, Tables D-4 and D-5.

13.1.4 Sampling and Analysis Plans

DOE will develop a stream specific sampling and analysis plan (SAP) for the Phase I and Phase II streams which continue to discharge to the soil column as specified in Appendix D, Table D-4. These SAPs shall be subject to approval of EPA and Ecology and will include an implementation schedule. The SAPs must provide for representative sampling of wastes discharged to the soil column, accounting for significant variations in volumes and contaminant concentrations due to operational practices. The frequency of sampling will vary, depending on the consistency or trends established for each stream over time. The SAPs will consider all of the parameters known or suspected to be associated with each liquid effluent stream with consideration given to the influence of operational practice, raw water characteristics, and process knowledge in developing contaminant analysis requirements. DOE will sample and analyze each stream in accordance with the approved sampling and analysis plan. The timing for development of each SAP will be specified on the appropriate M-17-00 milestone as set forth in Appendix D, Table D-4.

13.1.5 Assessment of Environmental Impact of Continuing Liquid Discharges

DOE will develop a methodology for assessing the impact of all discharges (including both active and proposed) on groundwater at the disposal sites. This methodology will rely on available data, additional liquid effluent sampling, analytical results supplied under Section 13.1.4, and optimal management practices. DOE shall submit this methodology to EPA and Ecology for approval. Within 30 calendar days after notification of approval of the methodology, DOE shall submit a schedule for the completion of the assessments for each of the 33 Phase I and Phase II effluent streams which will continue beyond June 1992.

13.1.6 Stream Specific Requirements and Restrictions

The Parties agree that interim operating restrictions are necessary to provide near-term assurance that all reasonable steps are being taken to minimize environmental degradation while negotiations and follow on actions are pursued. The twelve high-priority streams and the interim operating restrictions to be implemented for each of those streams are identified in Appendix D, Table D-5.

14.0 SIGNATURE

The undersigned hereby approve this action plan for implementation:

For the United States Environmental Protection Agency:

_____ _____
John Iani Date
Regional Administrator, Region 10
U.S. Environmental Protection Agency

For the United States Department of Energy:

_____ _____
Keith Klein Date
Manager, Richland Operations Office
U.S. Department of Energy

_____ _____
Roy Schepens Date
Manager, Office of River Protection
U.S. Department of Energy
(For ORP major milestones)

For the Washington State Department of Ecology:

_____ _____
Tom Fitzsimmons Date
Director,
Department of Ecology

APPENDIX A

DEFINITION OF TERMS AND ACRONYMS

- Acronyms
- Definition of Terms Used in the Action Plan
- Definition of Other Technical Terms

APPENDIX A

Acronyms (sheet 1 of 3)

AAMSR	Aggregate Area Management Study Report
ADS	Activity Data Sheet
AFP	Approved Funding Plan
ALARA	As Low As Reasonably Achievable
ALE	Fitzner/Eberhardt Arid Lands Ecology Reserve
AMU	Aqueous Makeup Unit
ARAR	Applicable, or Relevant and Appropriate Requirement
ATSDR	Agency for Toxic Substances and Disease Registry
BAT/AKART	Best Available Technology/All Known and Reasonable Technologies
BWIP	Basalt Waste Isolation Project
CAMU	Correction Action Management Unit
CDR	Conceptual Design Report
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CFR	Code of Federal Regulations
CMD	Corrective Measures Design
CMI	Corrective Measures Implementation
CMS	Corrective Measures Study
CPP	CERCLA Past Practice
CRP	Community Relations Plan
DCRT	Double-Contained Receiver Tank
DOE	U.S. Department of Energy
DOE-HQ	U.S. Department of Energy - Headquarters
DOE-RL	DOE Richland Operations Office (also known as RL)
DOI	U.S. Department of Interior
DQO	Data Quality Objectives
DRC	Dispute Resolution Committee
DST	Double Shell Tank
D&D	Decommissioning and Decontamination
DW	Dangerous Waste
EA	Environmental Assessment
ECA	Environmental Corporation of America
Ecology	State of Washington Department of Ecology
EEA	Engineering Evaluation of Alternative
EE/CA	Engineering Evaluation/Cost Analysis
EIS	Environmental Impact Statement
EM	DOE Office of Environmental Management
EPA	U.S. Environmental Protection Agency
ER	Environmental Restoration
FDC	Functional Design Criteria
FFTF	Fast Flux Test Facility
FFS	Focused Feasibility Study
FS	Feasibility Study
GIS	Geographic Information System (used on page G-2)
GPM	Gallons Per Minute
GPS	Global Positioning System
HLW	High-Level Waste
HSWA	Hazardous and Solid Waste Amendments (of 1984)
HSWMUR	Hanford Site Waste Management Units Report
HWMA	Hazardous Waste Management Act
HWVP	Hanford Waste Vitrification Plant

APPENDIX A

Acronyms (sheet 2 of 3)

IAMIT	Inter-Agency Management Integration Team
IM	Interim Measure
IRA	Interim Response Actions
IRM	Information Records Management
ISS	Interim Safe Storage (of the reactors)
ISV	In-situ Vitrification
LDR	Land Disposal Restrictions
LERF	Liquid Effluent Retention Facility
LES	Liquid Effluent Study
LFI	Limited Field Investigation
LLBG	Low-Level Burial Ground
LLW	Low-Level Waste
LWDF	Liquid Waste Disposal Facility
M/S	Milestone(s)
MASF	Maintenance and Storage Facility
MB	Megabyte
MCL	Maximum Contaminant Level
MREM	Millirem
MWTF	Multi-Function Waste Tank Facility
NCAW	Neutralized Current Acid Waste
NCP	National Oil and Hazardous Substances Contingency Plan
NCRW	Neutralized Cladding Removal Waste
NEPA	National Environmental Policy Act
NOAA	National Oceanic and Atmospheric Administration
NOD	Notice of Deficiency
NPDES	National Pollutant Discharge Elimination System
NPL	National Priorities List
NRC	Nuclear Regulatory Commission
NRDWL	Nonradioactive Dangerous Waste Landfill
O&M	Operation and Maintenance
OMB	Office of Management and Budget
ORP	Office of River Protection
OU	Operable Unit
PA/SI	Preliminary Assessment and Site Investigation
PCHB	Pollution Control Hearings Board
pCi/L	Pico Curies per Liter
PFP	Plutonium Finishing Plant (Z Plant)
PNRS	Preliminary Natural Resource Survey
PUREX	Plutonium/Uranium Extraction
QA	Quality Assurance
QA/QC	Quality Assurance/Quality Control
QC	Quality Control
QUAPjPs	Quality Assurance Project Plans
R&D	Research and Development
RA	Remedial Action
RCRA	Resource Conservation and Recovery Act
RCW	Revised Code of Washington
RD	Remedial Design
RD/RA	Remedial Design and Remedial Action
RD&D	Research, Development, and Demonstration
REDOX	Reduction-Oxidation (Facility)

APPENDIX A

Acronyms (sheet 3 of 3)

RFA	RCRA Facility Assessment
RFI	RCRA Facility Investigation
RFI/CMS	RCRA Facility Investigation/Corrective Measures Study
RI	Remedial Investigation
RI/FS	Remedial Investigation/Feasibility Study
RL	Richland Operations Office (DOE)
RMW	Radioactive Mixed Waste
ROD	Record of Decision
RPP	RCRA Past Practice
SAFER	Streamlined Approach for Environmental Restoration
SAP	Sampling and Analysis Plan
SARA	Superfund Amendments and Reauthorization Act of 1986
SEC	Senior Executive Committee
SHMS	Standard Hydrogen Monitoring Systems
SMS	Site Management System
SST	Single-Shell Tank
SWMU	Solid Waste Management Unit
TAG	Technical Assistance Grant
TBD	To Be Decided / Determined
TCD	Tank Characterization Database
TCRs	Tank Characterization Reports
TMACS	Tank Monitor and Control System
TPA	Tri-Party Agreement
TRU	Transuranic
TRUEX	Transuranic Extraction (process)
TRUSAF	Transuranic Waste Storage and Assay Facility
TSD	Treatment, Storage, and Disposal
TWAP	Tank Waste Analysis Plan's
TWINS	Tank Waste Information Network System
TWRS	Tank Waste Remediation System
U.S.C.	U.S. Code
USDOE	United States Department of Energy
USEPA	United States Environmental Protection Agency
USQ	Unreviewed Safety Questions
WAC	Washington Administrative Code
WESF	Waste Encapsulation and Storage Facility
WGL	Washington Guidance Level
WIDS	Waste Information Data System
WPPSS	Washington Public Power Supply System
WRAP	Waste Receiving and Processing
WM	Waste Management

APPENDIX A

Definition of Terms Used in the Action Plan (sheet 1 of 17)

Acceptance Criteria: A set of DOE-HQ approved criteria, as discussed in Section 14 of this document, which ensure a facility has: 1) successfully completed the facility transition phase, 2) prepared surveillance and maintenance (S&M) plan, and 3) maintained the S&M plan as a current document. As a result of meeting these conditions, the DOE Office of Environmental Restoration makes a determination of whether to accept the facility into the S&M phase (until a priority decision is made to disposition the facility).

Administrative Record: The administrative record is the body of documents and information that is considered or relied upon in arriving at a final decision for a remedial action, interim response action (i.e. removal action), corrective measure, interim measure, RCRA permit, or approved RCRA closure plan.

Agency (Agencies): Unless otherwise specified, the State of Washington Department of Ecology and the U.S. Environmental Protection Agency.

Agency for Toxic Substances and Disease Registry: The agency under the Department of Health and Human Services, Public Health Service, that is responsible for conducting health assessments at Superfund sites for EPA. (see Section 7.7)

Agreement: The Hanford Federal Facility Agreement and Consent Order, including all attachments, addenda and modifications, which are required to be written and to be incorporated into or appended.

Applicable or Relevant and Appropriate Requirement (ARAR): Any standard, requirement, criteria or limitation as provided in Section 121(d)(2) of CERCLA. (see Section 7.5)

Authority: Legal jurisdiction enabling a governmental agency to administer and implement federal or state laws and regulations.

B Plant: Old Hanford plutonium recovery and separations facility converted in 1968 for waste fractionation.

Base RCRA Program: Those elements of the federal Resource Conservation and Recovery Act of 1976, as amended, for which the state of Washington has received authorization to implement. The state implements its own dangerous waste program in lieu of the base RCRA program.

Burial Ground: Land area specifically designated to receive contaminated waste packages and equipment, usually in trenches covered with overburden.

APPENDIX A

Definition of Terms Used in the Action Plan (sheet 2 of 17)

Carbon Tetrachloride: A chlorinated organic solvent used in the plutonium extraction process at the Plutonium Finishing Plant. Carbon tetrachloride is a known human liver carcinogen via inhalation and ingestion. Other toxic effects include central nervous system damage.

Chromium: An inorganic element, found in the environment in two forms: hexavalent and trivalent. Hexavalent chromium is carcinogenic via inhalation; hexavalent and trivalent chromium are less toxic via ingestion. Hexavalent chromium is a primary contaminant in groundwater beneath the 100 Area at Hanford.

CERCLA Past Practice (CPP): A process by which a past practice unit containing hazardous substances will be addressed for response action (as opposed to RCRA past practice). (see Section 7.3)

Closure: Actions taken to reduce the human health and environmental threats posed by a hazardous waste treatment, storage and/or disposal (TSD) facility or unit (along with it structures and contiguous land) after the facility or unit has received its final volume of hazardous waste. Closure must satisfy applicable requirements of 40CFR Part 264, subpart G, and of WAC 173-303-610. For purposes of this Agreement, use of the word closure also includes actions necessary for the facility or unit to meet post closure requirements.

Code of Federal Regulations (CFR): Regulations developed by the federal government to implement statutory requirements.

Community Relations Plan (CRP): A report that assesses and defines a community's informational needs concerning potential hazards posed by conditions at hazardous waste sites. The CRP also encourages and ensures two-way communication between an affected community and the public agency overseeing the site cleanup. (see Section 10.0)

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), also known as Superfund: The federal statute enacted in 1980 and reauthorized in 1986, which provides the statutory authority for cleanup of hazardous substances that could endanger public health or welfare or the environment.

Conceptual Design Report: DOE's initial design phase for a new hazardous waste management or support unit at Hanford; a specific element necessary in DOE's planning and budget process.

APPENDIX A

Definition of Terms Used in the Action Plan (sheet 3 of 17)

Confined Aquifer: An aquifer having defined, relatively impermeable upper and lower boundaries and the pressure of which is significantly greater than atmospheric.

Containment Building (for the purposes of RCRA Interim Status Standards): A completely enclosed, self-supporting structure that is designed and constructed of manmade materials of sufficient strength and thickness to support themselves, the waste contents, and any personnel and heavy equipment that operate within the units. It has a primary barrier designed to be: 1) sufficiently durable to withstand the movement of personnel and the handling of equipment within the unit and 2) operated to ensure containment and prevent the tracking of materials from the unit by personnel or equipment. (Ref. 40 CFR 265.1100)

Contamination (Groundwater and Surface Water): An impairment of quality by biological, chemical, or radiological materials that lowers the water quality to a degree which creates a potential hazard to the environment, public health, or interferes with a beneficial use.

Corrective Action: The RCRA processes of interim and corrective measures. See definitions for Interim Measure and Corrective Measure.

Corrective Measure: An action taken under RCRA authority to permanently resolve a hazardous waste release or to significantly reduce the potential for a future release from a unit or group of units.

Corrective Measures Implementation (CMI): The step in RCRA past practice process in which a corrective action system is designed and implemented; comparable to the Remedial Design and Remedial Action phases of the CERCLA process. (see Section 7.4)

Corrective Measures Study (CMS): The step in the RCRA past practice process in which alternatives for a corrective action system are investigated and screened; comparable to the Feasibility Study phase of the CERCLA process. (see Section 7.4)

Crib: An underground structure designed to receive liquid waste that can percolate into the soil directly and/or after travelling through a connected tile field.

Cyanide: An extremely hazardous substance used in the extraction of ores, treatment of metals, and in the manufacture of pharmaceuticals.

Dangerous Waste (DW): Those solid wastes designated in WAC 173-303-070 through 173-303-103 as dangerous or extremely hazardous wastes.

APPENDIX A

Definition of Terms Used in the Action Plan (sheet 4 of 17)

Data Quality Objective (as used for a planning process): The formal decision making process between the laboratory and the client that defines necessary analytical requirements based on the end-use of the data.

Days: Calendar days, unless otherwise specified. Any submittal, Written Notice of Position or written statement of dispute that would be due under the terms of this Agreement on a Saturday, Sunday or federal or state holiday shall be due on the following business day.

Deactivation: Activities associated with removing facility systems and/or areas from operational service with the intent of being ready for facility transition to either convert the facility for another use or move to permanent shutdown. These activities could include the removal of fuel, draining and/or de-energizing of systems, removal of accessible stored radioactive and hazardous materials and other actions to place the facility systems and/or areas in a safe and stable condition so that a surveillance and maintenance program will be able to most cost effectively prevent any unacceptable risk to the public or the environment until ultimate disposition of the facility. (Note: These activities are usually conducted during the facility transition phase.)

Decontamination and Decommissioning (D&D)-(as defined by DOE Order 5840.2 for the D&D Program):

- Decontamination: The process of removing radioactive and/or hazardous contamination from facilities, equipment, or soils by physical removal, washing, heating, chemical action, mechanical cleaning or other techniques to achieve a stated objective or end condition.

- Decommissioning: Actions taken to reduce the potential health and safety impacts of DOE contaminated facilities, including activities to stabilize, reduce, or remove radioactive materials or to demolish the facilities.

Definitive Design: DOE's design phase in which detailed construction drawings and specifications are prepared following conceptual design for a new, or modification to a facility or unit.

Dismantlement: The process of disassembly and/or demolition of all or portions of a facility, and appropriate disposal of the residue.

APPENDIX A

Definition of Terms Used in the Action Plan (sheet 5 of 17)

Double Shell Tank (DST): A reinforced concrete underground vessel with two inner steel liners to provide containment and backup containment of liquid wastes; annulus is instrumented to permit detection of leaks from inner liner.

Entombment: The remedial process to encapsulate a facility in place as a method of final disposition once cleanout has been completed.

Executive Manager: For DOE, executive managers are the Assistant Managers with responsibility for implementing terms and conditions of the Agreement regarding the projects under his/her authority. For Ecology, the executive manager is the Program Manager of the Nuclear Waste Program. For EPA Region 10, the Executive Manager is the Program Manager, Hanford Project Office.

Expedited Response Action: A general term referring to either an interim response action (i. e. removal action) under authority of CERCLA, or an interim measure under the authority of HSWA.

Extremely Hazardous Waste (EHW): Those solid wastes designated in WAC 173-303-070 through 173-303-103 as dangerous or extremely hazardous wastes.

Facility (as applied to the Facility Decommissioning Process): A free-standing building, plant, laboratory, or other enclosure and associated buildings and disposal sites under its responsibility that fulfills, or fulfilled, a specific purpose, and is owned by or otherwise under the responsibility of the DOE-HQ. (Note: This usage differs substantially from that in the Comprehensive Environmental Response, Compensation, and Liability Act [CERCLA] and RCRA).

Facility Decommissioning Process: The sequential phases for a facility, once a shutdown decision is made by DOE-HQ, beginning with facility transition, through surveillance and maintenance (S&M), and final facility disposition.

Facility Disposition Phase: Final period in the life of a facility. This phase occurs when no future use is identified as part of the DOE-HQ facility assessment process and priority is given to proceed with disposition. This phase primarily involves processes to achieve a final end state for the facility (e.g., entombment, and/or dismantlement and site restoration), including closure of any TSDs. Facility disposition may be integrated with cleanup of past-practice units covered under CERCLA Remedial Action or RCRA Corrective Measure Authority.

APPENDIX A

Definition of Terms Used in the Action Plan (sheet 6 of 17)

Facility End Point Criteria (as used during facility transition phase): Facility-specific criteria prepared during facility transition planning to support development of the transition planning documentation, work plans, and ultimately the project management plan (see Section 14.0). Collectively these criteria provide a technical description of the acceptable state of facility components to be achieved at the end of the facility transition phase and are prepared consistent with EM acceptance criteria objectives outlined in the DOE-HQ EM Guidance Document. This definition includes a status of how tanks, piping, rooms/areas and miscellaneous systems and equipment will be left at the end of the transition phase for a period of surveillance and maintenance prior to final disposition. (Note: End point criteria for regulated units and hazardous substances that will remain in the facility following transition will be approved by the regulators.)

Facility End State Criteria (as used during facility disposition phase): Facility-specific criteria prepared during facility disposition planning to support development of planning documentation, work plans, and ultimately the disposition Project Management Plan (see Section 14.0). It provides a technical description and end state of the facility or facility area to be achieved (in accordance with the NEPA process, CERCLA and/or RCRA requirements, stakeholder input, and final land use planning) at the end of the facility disposition phase.

Facility Startup: The time at which the Department of Energy has completed their readiness assessment and has provided the operating contractor approval via letter to start initial operations. At this time the contractor has completed their readiness review verifying that: 1) all operability tests have been completed, 2) operating procedures are available for use, and 3) a trained operating staff capable of operating the facility is in place.

Facility Surveillance and Maintenance (S&M) Phase: Period in the life of a facility following completion of the transition phase until such time as the facility is dispositioned for other use, or facility disposition has commenced. The S&M program provides direction, management, and performance assessments to be carried out in accordance with an approved S&M Plan. The S&M phase ensures that facilities are maintained in a safe and environmentally sound manner until a final disposition occurs. In addition, the S&M level of effort will be established in the S&M Plan to minimize the costs of final disposition (i.e. as low as economically achievable) whether the facility is planned by DOE-HQ to be released for alternate use or for dismantlement and site restoration, and/or entombment under the facility disposition phase.

APPENDIX A

Definition of Terms Used in the Action Plan (sheet 7 of 17)

Facility Transition Phase: A period of time during which activities necessary to place the subject facility in a safe, stable, and environmentally sound condition, suitable for an extended period of surveillance and maintenance pending final disposition are completed. Facility transition starts with termination of operations, includes the establishment of a S&M program, and ends with the achievement of facility-specific end point criteria.

These actions could include the collective conversion of the facility for potential other uses or permanent shutdown; by the removal of fuel, draining and/or de-energizing of systems, removal of accessible stored radioactive and hazardous materials and other deactivation actions to place the facility in a safe and stable condition for the surveillance and maintenance program. This phase usually involves stabilization and deactivation processes and may also include some decontamination activities necessary to effectively result in reduced S&M cost for the facility. (Note: Facility transition documentation describing end point criteria for regulated units and hazardous substances that will remain in the facility following transition will be approved by the regulators.)

Fast Flux Test Facility (FFTF): A liquid metal test reactor that serves as a test tool for advanced reactor technology. Operations at the FFTF began in April 1982 and have since expanded into other areas, such as fusion research, space power systems and isotope production.

Feasibility Study (FS): The step in the CERCLA process in which alternatives for a remedial action system are investigated and screened (see Section 7.3).

Final Disposition of the Reactors: Final disposition of the reactors will consist of removing the reactor cores from their present location to a disposal facility in the 200 Area of the Hanford Site as specified in the FEIS-ROD. Associated structure(s) and residual wastes will be removed so as to meet established cleanup requirements pertaining to Hanford's 100 Area. Resulting wastes will be disposed at Hanford's ERDF, or other disposal facility as may be approved by the parties.

Fiscal Year (FY): As used in this document, the federal government fiscal year, October 1 through September 30. Note that the State of Washington fiscal year is July 1 through June 30.

Focused Feasibility Study: A study conducted such that a limited number of alternative are evaluated that are focused to the scope of the response action planned.

APPENDIX A

Definition of Terms Used in the Action Plan (sheet 8 of 17)

French Drain: A rock-filled encasement with an open bottom to allow seepage of liquid waste into the ground.

Future Site Uses Working Group: A group of representatives from tribal, government, business, economic development, labor, agriculture, environmental groups, and public interest groups with interests in Hanford. The group was charged with the task of articulating a range of visions for the future use of the Hanford Site, discussion on the implications of those visions on cleanup, and probing for commonalities and convergencies within the participants' visions as they applied to cleanup scenarios and priorities.

Groundwater: Water which fills the spaces between soil, sand, rock, and gravel particles beneath the earth's surface. Rain that does not immediately flow to streams and rivers slowly percolates down through the soil to a point of saturation to form groundwater reservoirs. Groundwater flows at a very slow rate, compared to surface water, along gradients which often lead to river systems. If occurring in significant quantities, groundwater can be withdrawn for domestic, industrial, and agricultural purposes.

Grout: A fluid mixture of cementitious materials and liquid waste that sets up as a solid mass and is used for waste fixation and immobilization. The Hanford Grout facility will be regulated under the RCRA program.

Grout Campaign: The complete filling of one vault with treated waste/grout mixture.

Hanford Operable Units Report: Documents the assignment of individual units to operable units and provides the rationale and justification for the prioritization of the operable units for the remedial investigation process.

Hanford Past Practice Strategy: A strategy developed with the primary objective to develop a uniform, stream-lined process to meet statutory requirements and integrate/coordinate CERCLA RI/FS and RCRA past-practice RFI/CMS requirements through effective cleanup actions.

Hanford Site: Also referred to as "Hanford" or "Site", the approximately 560 square miles in Southeastern Washington State, excluding leased lands, and State and Bonneville Power Administration owned lands, which is owned by the United States and which is commonly known as the Hanford Reservation (Figure 7-1 in the Action Plan). This definition is not intended to limit CERCLA or RCRA authority regarding hazardous wastes, substances, pollutants or contaminants which have migrated off the Hanford Site.

APPENDIX A

Definition of Terms Used in the Action Plan (sheet 9 of 17)

Hanford Site Waste Management Units Report (HSWMUR): Document listing all known waste management units at Hanford and summarizes the wastes handled, dates of use and other information about each unit. (see Section 3.5)

Hanford Waste Vitrification Plant (HWVP): A facility to be constructed for treatment of high level liquid radioactive waste. Liquids are vitrified or glassified in order to reduce the potential for radioactive and hazardous contamination leaching into the environment. This unit will be regulated under RCRA.

Hazardous and Solid Waste Amendments of 1984, P.L. 98-616 (HSWA): The reauthorization of the RCRA program, enacted by Congress on November 8, 1984.

Hazardous Substance: Substances regulated under CERCLA, as defined in CERCLA Sec. 101(14).

Hazardous Waste: Those wastes included in the definitions of RCRA 1004(5) and RCW 70.105.010(15).

Hazardous Waste Constituent, also referred to as "hazardous constituent" or "constituent": A constituent that caused the Administrator of the Environmental Protection Agency to list the hazardous waste in 40 CFR Part 261, Subpart D or a constituent listed in Table 1 of 40 CFR 261.24. (Hazardous constituents are listed in 40 CFR Part 261, Appendix VIII.)

Hazardous Waste Management Act (HWMA): The Hazardous Waste Management Act, codified at Ch. 70.105 RCW, and its implementing regulation at Ch. 173-303 Washington Administrative Code. (A state program, commonly referred to as the State Dangerous Waste Program, which regulates the generation, treatment, storage and/or disposal of hazardous wastes in cooperation with RCRA).

Imminent and Substantial Endangerment: A situation in which the lead regulatory agency and DOE immediately respond to a release of a hazardous substance or hazardous waste in order to abate the danger or threat to public health or welfare or the environment. Such action may be taken under CERCLA, RCRA, or HWMA authority, as appropriate.

In-Situ Vitrification (ISV): A process by which electrical current is passed through contaminated soils in-place heating the soil to a molten state. While cooling the soils become a homogenous glass-like block thereby minimizing the leachability of contaminants.

APPENDIX A

Definition of Terms Used in the Action Plan (sheet 10 of 17)

Interagency Management Integration Team (IAMIT): A committee of the Executive Managers from each agency with the functions of negotiation of new milestones, adjustment of scope and schedule of existing interim milestones, and Tri-Party Agreement Issue Resolution/Dispute Resolution. The IAMIT also serves as the interface with the Hanford Advisory Board (HAB).

Interim Isolation (as pertains to Single-Shell Tanks): Disconnecting and blanking or capping pipelines from SST systems and installing barriers to avoid inadvertent liquid addition.

Interim Measure (IM): An expedited response action taken under RCRA authority to mitigate a hazardous waste release or to reduce the potential for a future release from a unit. (see Section 7.2.4)

Interim Response Action (IRA): An expedited response action taken under CERCLA authority to mitigate a hazardous substance release or to reduce the potential for a future release from a unit. (see Section 7.2.4) Referred to as a removal action in the NCP.

Interim Safe Storage (ISS) of the Reactors: Interim Safe Storage (ISS) is the first stage of final disposition. It consists of (i) ensuring that facility hazardous substances are and will remain safe and secure, and (ii) reducing the footprint of the reactor building to the primary shield wall, and sealing all openings such that the facility is in an environmentally safe and secure condition prior to initiation of disposition phase II. During reactor ISS all ancillary structures surrounding the shield wall will be removed. Resulting wastes will be disposed at Hanford's Environmental Restoration Disposal Facility (ERDF), or other disposal facility as may be approved by the parties. On completion of ISS, surveillance and maintenance systems will be upgraded as appropriate to provide for remote monitoring of the remaining structure prior to disposition phase II.

Interim Stabilization (as pertains to Single-Shell Tanks): Is the removal of pumpable supernatant and interstitial liquid from SST systems into DST systems. As much liquid as practicable will be removed. Supernatant is free standing liquid. Interstitial liquid is that liquid in the waste matrix contained within the pore spaces of the salts and sludges, some of which is capable of gravity drainage while the rest is held by capillary forces. Remaining uncompleted milestones and associated target dates for interim stabilization of DOE’s Single-Shell Tanks are deleted from the scope of the Tri-Party Agreement.

Interim Status: A RCRA provision which grants a facility the right to continue to operate (treat, store, or dispose of hazardous waste) in accordance with applicable RCRA or state regulations until a RCRA permit is issued.

APPENDIX A

Definition of Terms Used in the Action Plan (sheet 11 of 17)

Land Disposal Restriction Waste (LDR): RCRA hazardous wastes, subject to Section 3004(d) through (m) of RCRA and 40 CFR 268.

Lead Regulatory Agency: The agency (EPA or Ecology) which is assigned regulatory oversight responsibility with respect to actions under this Agreement regarding a particular Operable Unit, TSD group/unit or milestone pursuant to Section 5.6 of the Action Plan. The designation of a Lead Regulatory Agency shall not change the jurisdictional authorities of the Parties.

National Oil and Hazardous Substances Pollution Contingency Plan (NCP): The title of the federal regulations (40 CFR Part 300) promulgated under the authority of CERCLA.

National Priorities List (NPL): EPA's list of priority waste sites containing hazardous substances that will be investigated and cleaned up under the Superfund program.

Notice of Deficiency (NOD): A RCRA administrative action in which the lead regulatory agency defines specific deficiencies or omissions in RCRA primary documents. (see Section 9.2)

Office of River Protection (ORP): DOE's organizational structure at the Hanford Site that is responsible for managing all aspects of the Tank Waste Remediation System (Also referred to as the Hanford Tank Farm Operations). The Manager of the Office of River Protection reports directly to DOE's Assistant Secretary of Energy for Environmental Management.

Operable Unit: A discrete portion of the Hanford Site, as identified in Section 3.3 of the Action Plan. An operable unit at Hanford is a group of land disposal sites placed together for the purposes of doing a Remedial Investigation/ Feasibility Study (RI/FS) and subsequent cleanup actions. The primary criteria for placement of a site into an operable unit includes geographic proximity, similarity of waste characteristics and site type, and the possibility for economies of scale.

Parties: The U.S. Environmental Protection Agency, the State of Washington Department of Ecology, and the U.S. Department of Energy, all of which are signing the Agreement and Action Plan.

Plutonium Uranium Extraction (PUREX): Latest in a line of separation technologies, preceded by bismuth phosphate and REDOX.

Post-Closure: The period of care, including maintenance, monitoring, and reporting, that is undertaken at a facility or unit (e. g. landfill or impoundment closed as disposal facilities or units) after closure to ensure continued environmental safety. Post closure care must satisfy applicable requirements of 40 CFR Part 264, subpart G, and of WAC 173-303-610.

APPENDIX A

Definition of Terms Used in the Action Plan (sheet 12 of 17)

Preliminary Assessment and Site Inspection (PA/SI): Normally the first step in analyzing the nature and severity of contamination at a potential CERCLA site and is used to determine if a site should be nominated for the NPL. Based upon extensive documentation previously submitted to EPA by DOE, this requirement is considered to have been satisfied for the Hanford Site.

Primary Documents: Documents which contain information, documentation, data, and proposals upon which key decisions will be made with respect to the remedial action or permitting process. Primary documents are subject to dispute resolution and are part of the administrative record. (see Section 9.2)

Project Manager: The individual responsible for implementing the terms and conditions of the Agreement at the specific operable unit level on behalf of his/her respective Party. The project manager has direct responsibility for completion of targets and milestones and has authority to agree to modifications of scope and schedule, in accordance with Section 12.0 of the Action Plan.

Quality Assurance (QA): The systematic actions necessary to provide adequate confidence that a material, component, system, process, or facility performs satisfactorily, or as planned in service.

Quality Control (QC): The quality assurance actions that control the attributes of a material, process, component, system, or facility in accordance with predetermined quality requirements.

Radioactive Mixed Waste: Also called "mixed waste", wastes that contain both hazardous waste subject to RCRA, as amended, and radioactive waste subject to the Atomic Energy Act of 1954, as amended. Mixed waste is regulated under the State Dangerous Waste Program.

Radioactive Waste: A solid, liquid, or gaseous material of negligible economic value that contains radionuclides in excess of threshold quantities except for radioactive material from post-weapons-test activities.

Record of Decision (ROD): The CERCLA document used to select the method of remedial action to be implemented at a site after the Feasibility Study/Proposed Plan process has been completed. (see Section 7.3)

Remedial Action: An action taken under CERCLA authority to permanently resolve a hazardous substance release or to significantly reduce the potential for a release from a unit or group of units.

APPENDIX A

Definition of Terms Used in the Action Plan (sheet 13 of 17)

Remedial Action (RA) Phase: The CERCLA process of remedial action implementation after the investigative steps have been completed and after issuance of the Record of Decision and after Remedial Design has been completed. (see Section 7.3)

Remedial Design (RD): The CERCLA process of design for the remedial action alternative that was selected in the Record of Decision. (see Section 7.3)

Remedial Investigation (RI): The CERCLA process of determining the extent of hazardous substance contamination and, as appropriate, conducting treatability investigations. The RI is done in conjunction with the Feasibility Study. (see Section 7.3)

Resource Conservation and Recovery Act (RCRA): 42 U.S.C. Sec. 6901 et seq., as amended. For purposes of this Agreement, "RCRA" also includes the HWMA Ch. 70.105 RCW. (A federal law enacted in 1976 that regulates the generation, transportation, treatment, storage, and disposal of hazardous wastes).

Response Action: The CERCLA processes of interim response and remedial actions. See definitions for Interim Response Action and Remedial Action.

Responsiveness Summary: A summary of oral and/or written public comments received during a comment period on key documents, and agency responses to those comments. The responsiveness summary is especially valuable during the decision process at a site, because it highlights community concerns about the proposed decision.

RCRA Facility Assessment (RFA): The initial RCRA process to determine whether corrective action for a RCRA past practice unit is warranted, or to define what additional data must be gathered to make this determination; analogous to a CERCLA Preliminary Assessment and Site Inspection (see Section 7.4)

RCRA Facility Investigation (RFI): The RCRA process of determining the extent of hazardous waste contamination; analogous to the CERCLA Remedial Investigation. (see Section 7.4)

RCRA Past Practice (RPP): A process by which a past practice unit containing hazardous wastes or hazardous constituents will be addressed for corrective action, regardless of the date waste was received or discharged at a unit. (see Section 7.4)

APPENDIX A

Definition of Terms Used in the Action Plan (sheet 14 of 17)

RCRA Permit: A permit under RCRA and/or HWMA for treatment, storage or disposal of hazardous waste.

Revised Code of Washington (RCW): The Washington State statutes.

Risk Assessment: An analysis of the potential adverse effects to human health and/or the environment (current or future) caused by radionuclide and/or hazardous substance releases from a site in the absence of any actions to control or mitigate these releases.

S&M Surplus Facilities: Facilities on the Hanford Site transferred from DOE Operations to the surveillance and maintenance phase under the responsibility of EM (Office of Environmental Restoration) prior to the establishment of the EM (Office of Facility Transition). The facility decommissioning process for these special case facilities will be completed entirely under the disposition phase funded on a DOE-HQ priority basis by EM (Office of Environmental Restoration).

Secondary Document: As distinguished from Primary Document, it is considered to be a supporting document providing information or data and does not, in itself, reflect key decisions. A secondary document is subject to review by the regulatory agencies and is part of the administrative record. It is not subject to dispute resolution. (see Section 9.2)

Shutdown Decision: A formal DOE-HQ documented determination that a facility is surplus (see surplus facility).

Signatories: The Signatories are: For the DOE, the signatory shall be the Manager, Richland Operations Office. For the EPA, the Signatory shall be the Regional Administrator for Region X. For the State of Washington Department of Ecology, the signatory shall be the Director.

Single-Shell Tank (SST): At Hanford, 149 single-shell carbon steel tanks (ranging in size from 55,000 to 1 million gallons) that have been used to store high-level radioactive wastes.

Skyshine: Gamma radiation emitted from a source that is reflected off particles in the air, sometimes landing several hundred meters from their point of origin.

APPENDIX A

Definition of Terms Used in the Action Plan (sheet 15 of 17)

Stabilization: The combination of steps or activities to secure, convert and/or confine radioactive and/or hazardous material within enclosures, exhaust ducts, and process equipment within a facility. These activities may include; removal of loose equipment items, draining process fluids to the maximum extent practicable, coating internal surfaces with a fixative coating, removal of waste materials, installing seals and blank flanges, termination of nonessential energy sources, and/or conversion of reactive residues to a stable form suitable for extended safe storage. (Note: Stabilization activities are usually performed during the facility transition phase, but may be performed before the transition phase as a best management practice for cost efficiency, as low as reasonably achievable [ALARA], and/or safety purposes.)

State of Washington Department of Ecology (Ecology): The State of Washington Department of Ecology, its employees and Authorized Representatives.

State-only Wastes: Any liquid, solid, gas or sludge, regardless of quantity that exhibits any of the physical, chemical, or biological properties described in WAC 173-303-070 through 103.

Superfund Amendments and Reauthorization Act of 1986 (SARA): The reauthorization of the CERCLA statute, enacted by Congress in December 1986.

Support Agency: The regulatory agency (EPA or Ecology) which is not designated as the lead regulatory agency at an operable unit. The support agency will provide assistance to the lead regulatory agency, as needed.

Surplus Facility: Any facility or site (including equipment) that has no identified programmatic use by the operating phase Program Secretarial Officer.

Surveillance and Maintenance: Activities conducted to assure that a site or facility remains in a physically safe and environmentally secure condition, and includes periodic inspections and monitoring of the property, appropriate contamination control actions, and required maintenance of barriers controlling access. (Note: This process continues as a best management practice through the facility disposition phase until final disposition is achieved as defined in Section 8.0 of this Action Plan.)

APPENDIX A

Definition of Terms Used in the Action Plan (sheet 16 of 17)

Tank Waste Task Force: A group of representatives from tribal, government, business, economic development, labor, agriculture, environmental groups, and public interest groups focused on Hanford, labor, and public health. The task force was charged with providing values relative to the Tank Waste Remediation System and with principles for the overall Tri-Party Agreement package during the renegotiations of the Tri-Party Agreement, Summer 1993.

Technical Assistance Grant (TAG): A grant available from EPA designed to enhance public participation as described in Section 117 of CERCLA. A maximum of $50,000 per NPL site is available. Grant money must be used for the purpose of interpreting information regarding CERCLA activity at the site.

Treatment, Storage, or Disposal (TSD): A RCRA term referring to the treatment, storage, or disposal of hazardous waste. Under RCRA, TSD activity can occur only at units which received or stored hazardous waste after November 19, 1980, the effective date of the RCRA regulations.

Treatment, Storage, or Disposal (TSD) Group: A grouping of TSD units for the purpose of preparing and submitting a permit application and/or closure plan pursuant to the requirements under RCRA, as determined in the Action Plan.

Treatment, Storage, or Disposal (TSD) Unit: A unit used for treatment, storage, or disposal of hazardous waste and is required to be permitted and/or closed pursuant to RCRA requirements as determined in this Action Plan.

United States Department of Energy (DOE): The United States Department of Energy, its employees and Authorized Representatives.

United States Environmental Protection Agency (EPA): The United States Environmental Protection Agency, its employees and Authorized Representatives.

Unplanned Release: An unintentional release, including a spill, of hazardous waste or hazardous substance into the environment.

Vadose Zone: The unsaturated region of soil between the ground surface and the water table.

APPENDIX A

Definition of Terms Used in the Action Plan (sheet 17 of 17)

Validated Data: Data that DOE has determined meets criteria contained in the "Data Validation Guidelines for Contract Laboratory Program Organic Analyses" and "Data Validation Guidelines for Contract Laboratory Program Inorganic Analyses" that are contained in the Sample Management Administrative Manual.

Verified Data: Data that has been checked for accuracy and consistency by DOE following a transfer action (e.g., from manual log to computer or from distributed data base to centralized data repository).

Vitrification: [see Hanford Waste Vitrification Plant (HWVP) or In-Situ Vitrification.]

Washington Administrative Code (WAC): The Washington State regulations.

Waste Information Data System (WIDS): A database which identifies all waste management units on the Hanford Site. It describes the current status of each unit, along with descriptive information. (see Section 3.5)

APPENDIX A

Definition of Other Technical Terms (sheet 1 of 6)

Note: These terms are not considered part of the Action Plan, but are provided to the reader for informational purposes only.

Absorption: The process by which radiation imparts some or all of its energy to any material through which it passes; the taking up of a substance by another substance.

Alpha-Emitter: A radioactive substance, such as plutonium, that emits alpha particles. Alpha radiation is much less penetrating than gamma or beta radiation, but is much more ionizing, and therefore potentially extremely toxic.

Aquifer: A geologic formation, group of formations, or part of a formation capable of yielding significant quantities of groundwater to wells, springs, or other points of discharge.

Aquifer System: A logical grouping of aquifers in a region, grouped on the basis of characteristics such as superficial geology, water quality, and vulnerability.

Annulus: Also called "annular space", this is the space between the outer and inner casing of a well, or the space between the wall of the drilled hole and the casing.

As Low As Reasonably Achievable (ALARA): A radiation protection principle applied to radiation exposure, with costs and benefits taken into account.

Background Water Quality: The natural levels of chemical, physical, biological, and radiological constituents or parameters upgradient of a unit, practice, or activity that have not been affected by that unit, practice, or activity.

Barrier: A manmade addition to a disposal site that is designed to retard or preclude contaminant transport and/or to preserve the integrity of the disposal site.

Basalt: A dark, fine-grained, extrusive igneous rock.

Basalt Waste Isolation Project (BWIP): Program to study Hanford as a possible location for the high-level nuclear waste repository.

Beneficial Uses: Uses of waters of the state that include but are not limited to use for domestic water, irrigation, agriculture, fish, shellfish, recreation, industrial water, and generation of electric power.

Definition of Other Technical Terms (sheet 2 of 6)

Beta Radiation: Essentially weightless charged particles (electrons or positrons) emitted from the nucleus of atoms undergoing nuclear transformation.

Bottoms (tank bottoms): The concentrated material remaining in the waste tanks after most of the contents have been pumped out for solidification or transfer to other storage tanks; refers also to specific tanks used to collect such bottoms waste from several other tanks.

Byproduct Material: Waste produced by extraction or concentration of uranium or thorium from any ore processed primarily for its source material content, including discrete surface waste resulting from uranium solution extraction processes; excludes fission products and other radioactive material covered in 10 CFR Part 20.3(3).

Cold Standby: A condition whereby a reactor is defueled and maintained in a state that will allow the reactor to be restarted, if necessary.

Criteria: Numerical or narrative values which represent the maximum level a contaminant must not exceed to maintain a given beneficial use.

Curie (Ci): The basic unit used to describe the intensity of radioactivity. A curie is equal disintegrations to 37 billion per second.

Defense Waste: Radioactive waste from any activity performed in whole or in part in support of DOE atomic energy defense activities; term excludes waste under purview of the Nuclear Regulatory Commission or generated by the commercial nuclear power industry.

Ditch: An unlined conveyance for transport of liquid wastes to a pond or trench structure designed for percolation.

Drywell: A drainage receptacle constructed by digging a hole and refilling with coarse gravel; also a watertight well casing used for inserting monitoring equipment.

Enforcement Standard: The value assigned to any contaminant for the purposes of regulating that contaminant.

Ethylene Glycol: An organic compound used primarily as an anti-freeze. Ethylene glycol is moderately toxic when ingested.

Evapotranspiration: The combined loss of water from soil by evaporation and from the surfaces of plant structures.

Definition of Other Technical Terms (sheet 3 of 6)

Half-life: The time required for a radionuclide's activity to decay to half its value, used as a measure of the persistence of radioactive materials; each radionuclide has a characteristic constant half-life.

Halogenated Hydrocarbons: Organic compounds containing atoms such as chlorine, fluorine, iodine, or bromine.

Hydraulic Continuity: A term used to describe the relationship between groundwater and surface water, wherein they are often connected, allowing flow in either or both directions.

Iodine: A gaseous inorganic chemical produced in the plutonium production reactors at Hanford. Radioactive isotopes of iodine are found in most radioactive waste streams at Hanford.

Ion Exchange: Process for selectively removing a hazardous constituent from a waste stream by reversibly transferring ions between an insoluble solid and the waste stream; the exchange medium (usually from a column of resin) can then be washed to collect the waste or taken directly to disposal. Both the residue and liquid stream from this process may still be a hazardous waste.

Isotope: Any of two or more forms of a chemical with the same atomic number and nearly identical chemical behavior but different atomic mass and physical (e.g. radioactive) properties.

Jet Pumping: A technique for removing interstitial liquor from single-shell tanks.

Leachate: The product obtained from the passage of water through landfills or storage piles.

Lead: A heavy metal used for shielding material in nuclear reactors. Lead can be toxic when ingested or inhaled. Lead can impair nervous system development in children and can cause nervous system damage in adults. Lead is also a reproductive toxin.

Level of Detection: The level at which a constituent can be detected by a department approved method of analysis.

Liquid Waste Disposal Site: Units used for discharge of contaminated liquids to the ground.

Low-Level Waste (LLW): Typically contains small amounts of radioactivity in large volumes, and most can be handled without protective shielding. Solid low-level waste consists of trash such as clothing, tools, and glassware. Liquid waste consists primarily of water circulated as cooling water.

Definition of Other Technical Terms (sheet 4 of 6)

Lysimeter: An instrument for measuring the water percolating through soils and determining the materials dissolved by the water.

Maximum Contaminant Level (MCL): The maximum level of a contaminant in water that can exist without harming the beneficial use of drinking water. Defined specifically in the Safe Drinking Water Act.

N-Reactor: N-Reactor is a dual purpose reactor, generating electricity from its steam by-product in addition to producing plutonium. It is the only plutonium production reactor at Hanford that has operated since 1971. It is currently in standby status.

National Pollutant Discharge Elimination System (NPDES): Grants authority to EPA and authorized states to issue permits for discharge of wastewaters into certain surface water bodies within prescribed limits for constituents, concentrations and volumes.

Percolation: Gravity flow of water through pore spaces in rock or soil.

pH: A measure of acidity and alkalinity.

Plume: A defined area of groundwater contamination.

Plutonium: A radioactive element used as the primary fuel in nuclear weapons. Plutonium is purified during various production operations at Hanford.

Point of Compliance: A RCRA term, the point at which the groundwater protection standard applies and where monitoring must be conducted. The point of compliance is a vertical surface located at the hydraulically downgradient limit of the waste management area that extends down into the uppermost aquifer underlying the regulated units.

Ponds: Surface impoundments used to contain low-level liquid radioactive wastes, mixed wastes, or hazardous wastes.

Receptor: Any living entity potentially affected by release of substances to the environment from Hanford operations.

Recharge: The net process of groundwater replenishment by infiltration of surface water through the soil column. Sources of recharge include precipitation and surface runoff from natural and man-made water courses and impoundments.

Reduction/Oxidation (REDOX): A facility and/or processes for separating plutonium from irradiated reactor fuels by using successive steps of chemical reduction/oxidation together with solvent extraction.

Definition of Other Technical Terms (sheet 5 of 6)

Reverse Well: Liquid waste disposal structure consisting of a well (sometimes drilled into the water table) into which waste solutions were pumped.

Salt Cake: Crystallized nitrate and other salts deposited in waste tanks, usually after active measures are taken to remove moisture.

Sanitary Landfill: A burial operation for disposing of nonradioactive, nonhazardous waste or garbage.

Saturated Zone: The subsurface zone in which all interconnected voids or pores are filled with water.

Seepage Pond: An artificial body of surface water formed by discharge from Hanford process operations.

Solid Waste (radioactive): Either solid radioactive material or solid objects that contain radioactive material or bear radioactive surface contamination.

Stabilization: Treatment of waste or a waste site to protect the environment from contamination.

State Waste Discharge Permit: A permit issued pursuant to Chapter 173-216 WAC.

Strontium 90: A highly radioactive isotope common in most radioactive waste streams at Hanford.

Sulfuric Acid: A highly corrosive inorganic acid used in various production processes at Hanford.

Surplus Facility: Any facility or site (including equipment) that has no identified programmatic use and may or may not be radioactively contaminated to levels that require controlled access.

Synthetic Organic: Man-made chemical compounds that contain carbon and may be highly persistent in the environment.

Tank Farm: An installation of multiple adjacent tanks, usually interconnected, for storage of liquid waste, or substances used in Hanford operations. Major tank farms at Hanford at underground.

Transuranic (TRU) Waste: Waste contaminated with long-lived transuranic elements in concentrations with in a specified range established by DOE, EPA, and the Nuclear Regulatory Commission (NRC). These are elements shown above uranium on the chemistry periodic table, such as plutonium, americium, and neptunium.

Definition of Other Technical Terms (sheet 6 of 6)

Trend Analysis: A statistical methodology used to detect net changes or trends in contaminant levels over time.

Tritium: A radioactive isotope of hydrogen used in nuclear weapons to increase the efficiency of the nuclear reaction.

Tunnel: A large underground storage structure for large pieces of equipment, often on railroad cars; PUREX storage tunnels.

Unconfined Aquifer: An aquifer overlain with permeable material and sensitive to contamination; also, an aquifer that has a water table or surface at atmospheric pressure.

Vault: A RCRA approved, subsurface structure designed for permanent disposal of low-level mixed wastes in grout.

Washington Guidance Level (WGL): An interim health level for a contaminant which does not have an established criterion but which may create a public health hazard. A WGL is based on less stringent development processes than a criterion and is meant to act as an enforcement guide until a criterion is established. WGL will be based on the most current available data which may include, but not be limited to: (a) USEPA Maximum Contaminant Level Goals, (b) USEPA Priority Pollutant Values, (c) USEPA Ambient Water Quality Criteria, (d) USEPA Health Advisories, (e) Other States criteria or Guidance Levels, and (f) Department of Social and Health Services Health Risk Assessments.

Water Table: The upper boundary of an unconfined aquifer surface below which soil saturated with groundwater occurs; defined by the levels at which water stands in wells that barely penetrate the aquifer.

200 Areas Plateau: The highest portion (aside from Rattlesnake and Gable Mountains) on the Hanford Site, containing most of the waste processing and storage facilities.

APPENDIX B

Listing of Treatment, Storage, and Disposal Groups/Units. (sheet 1 of 17)

Treatment, Storage, and Disposal			Planned Action	
Group Number	Group/Units	Operable Unit (if applicable)	Closure*	Operating Permit
D-1-1	100-D Ponds (120-D-1)	100-DR-1	X	
T-1-1	105-DR (122-DR-1) Sodium Fire Facility		X	
D-1-2	1301-N/1325-N Liquid Waste Disposal Facilities	100-NR-1	X	
	116-N-1 Crib			
	116-N-3 Crib			
T-1-2	1324-N/1324-NA Liquid Waste Facilities	100-NR-1	X	
	120-N-1 Pond			
	120-N-2 Neutralization Unit			
T-1-3**	1706-KE Treatment Facility (116-KE6 A-D):		X	
	1706-KE Waste Accumulation Tank			
	1706-KE Ion Exchange Column			
	1706-KE Solidification Unit (Evaporator)			
	1706-KE Condensate Tank			

T-1-4	183-H Solar Evaporation Basins (116-H-6)	100-HR-1	X	
S-2-8	200 East Area Liquid Effluent Retention Facility (LERF)			Storage
T-2-1	200-E8 Borrow Pit Demolition Site		X	
T-2-2	200-W Ashpit Demolition Site		X	
T-2-3***	204-AR Waste Unloading Station			Treatment
S-2-7	207-A South Retention Basin	200-PO-5	X	
D-2-1	2101-M Pond		X	
D-2-2	216-A-10 Crib	200-PO-2	X	
D-2-3	216-A-29 Ditch	200-BP-11	X	
D-2-4	216-A-36B Crib	200-PO-2	X	
D-2-10	216-A-37-1 Crib	200-PO-4	X	
D-2-5	216-B-3 Pond System:	200-BP-11	X	
	216-B-3 Pond			
	216-B-3A Pond			
	216-B-3B Pond			
	216-B-3C Pond			
	216-B-3-3 Ditch			
S-2-3	Double-Shell Tanks			Storage
	241-AN Farm (7 tanks)			
	241-AP Farm (8 tanks)			
	241-AW Farm (6 tanks)			
	241-AY Farm (2 tanks/2 diversion boxes)			
	241-AZ Farm (2 tanks)			
	241-SY Farm (3 tanks)			
	241-EW-151 Vent Station Catch Tank			
	244-AR Vault			
	244-CR Vault			
	244-TX Receiver Tank			

	244-BX Receiver Tank		
	244-U Receiver Tank		
	244-S Receiver Tank		
	244-A Receiver Tank		
S-2-9	241-CX-70 Tank	200-SO-1	X
D-2-6	216-B-63 Trench	200-BP-11	X
D-2-7	216-S-10 Pond and Ditch	200-RO-1	X
	216-S-10D Ditch		
	216-S-10P Pond		

D-2-8	216-U-12 Crib	200-UP-2	X	
D-2-9	Low-Level Burial Grounds			
	218-E-10			Landfill
	218-E-12B			Landfill
	218-W-3A			Landfill
	218-W-3AE			Landfill
	218-W-4B			Landfill
	218-W-4C			Landfill
	218-W-5			Landfill
	218-W-6			Landfill
S-2-1	Purex Tunnels 1 and 2			Storage
	218-E-14			
	218-E-15			
T-2-4**	221-T Containment System Test Facility		X	
TS-2-1	222-S Laboratories Treatment Tanks and Storage Building			
	222-S Storage Pad			
	*** 219-S Hot Waste Facility Tank 102			Storage
	*** 219-S Hot Waste Facility Tank 103			Treatment
				Treatment

S-2-2	224-T Transuranic Storage and Assay Facility (TRUSAF)			Storage
S-2-4	Single-Shell Tanks		X	
	241-A Farm (6 tanks/2 diversion boxes)	200-PO-3		
	241-AX Farm (4 tanks/1 diversion box)	200-PO-3		
	241-B Farm (16 tanks/5 diversion boxes)	200-BP-7		
	241-BX Farm (12 tanks/6 diversion boxes)	200-BP-7		
	241-BY Farm (12 tanks/3 diversion boxes)	200-BP-7		
	241-C Farm (16 tanks/6 diversion boxes)	200-PO-3		
	241-S Farm (12 tanks/2 diversion boxes)	200-RO-4		
	241-SX Farm (15 tanks/2 diversion boxes)	200-RO-4		
	241-T Farm (16 tanks/6 diversion boxes)	200-TP-6		
	241-TX Farm (18 tanks/4 diversion boxes)	200-TP-5		
	241-TY Farm (6 tanks/1 diversion boxes)	200-TP-5		
	241-U Farm (16 tanks/8 diversion boxes)	200-UP-3		

APPENDIX B

Listing of Treatment, Storage, and Disposal Groups/Units. (sheet 6 of 17)

Operable Unit	Title of Units	Unit Type
S-2-4 Single Shell Tanks (continued)		
200-BP-7	241-B Tank Farm (16 Units)	Single-Shell Tank
	241-B-151	Diversion Box
	241-B-152	Diversion Box
	241-B-153	Diversion Box
	241-B-252	Diversion Box
	241-B-301B	Catch Tank
	241-BR-152	Diversion Box
	241-BX Tank Farm (12 Units)	Single-Shell Tank
	241-BX-153	Diversion Box
	241-BX-302A	Catch Tank
	241-BXR-151	Diversion Box
	241-BXR-152	Diversion Box
	241-BXR-153	Diversion Box
	241-BY Tank Farm (12 Units)	Single-Shell Tank
	241-BYR-152	Diversion Box
	241-BYR-153	Diversion Box
	241-BYR-154	Diversion Box
	242-B-151	Diversion Box
	244-BXR	Receiving Vault
	2607-EB	Septic Tank
	UN-200-E-43	Unplanned Release
	UN-200-E-76	Unplanned Release

APPENDIX B

Listing of Treatment, Storage, and Disposal Groups/Units. (sheet 6 of 17)

Operable Unit	Title of Units	Unit Type
	UN-200-E-79 UN-200-E-101	Unplanned Release
	UN-200-E-105	Unplanned Release
	UN-200-E-109	Unplanned Release
		Unplanned Release

S-2-4 Single Shell Tanks (continued)

200-PO-3	216-A-39	Crib
	216-C-8	French Drain
	241-A Tank Farm (6 Units)	Single-Shell Tank
	241-A-152	Diversion Box
	241-A-153	Diversion Box
	241-A-350	Catch Tank
	241-A-417	Catch Tank
	241-A-A	Diversion Box
	241-A-B	Diversion Box
	241-AR-151	Diversion Box
	241-AX Tank Farm (4 Units)	Single-Shell Tank
	241-AX-151	Diversion Box
	241-AX-152-CT	Catch Tank
	241-AX-152-DS	Diversion Box
	241-AX-155	Diversion Box
	241-AX-501	Valve Pit
	241-AX-A	Diversion Box
	241-AX-B	Diversion Box

S-2-4 Single Shell Tanks (continued)

200-PO-3 (Continued)	241-C Tank Farm (16 Units)	Single-Shell Tank
	241-C-151	Diversion Box
	241-C-152	Diversion Box
	241-C-153	Diversion Box
	241-C-252	Diversion Box
	241-C-301C	Catch Tank
	241-CR-151	Diversion Box
	241-CR-152	Diversion Box
	241-CR-153	Diversion Box
	241-ER-153	Diversion Box
	2607-ED	Septic Tank
	2607-EG	Septic Tank
	2607-EJ	Septic Tank
	UN-200-E-16	Unplanned Release
	UN-200-E-18	Unplanned Release
	UN-200-E-27	Unplanned Release
	UN-200-E-47	Unplanned Release
	UN-200-E-48	Unplanned Release
	UN-200-E-68	Unplanned Release
	UN-200-E-72	Unplanned Release
	UN-200-E-81	Unplanned Release
	UN-200-E-82	Unplanned Release
	UN-200-E-86	Unplanned Release
	UN-200-E-91	Unplanned Release
	UN-200-E-94	Unplanned Release
	UN-200-E-99	Unplanned Release
	UN-200-E-100	Unplanned Release
	UN-200-E-107	Unplanned Release
	UN-200-E-118	Unplanned Release

S-2-4 Single Shell Tanks (continued)

200-RO-4	241-S Tank Farm (12 Units)	Single-Shell Tank
	241-S-152	Diversion Box
	241-S-302B	Catch Tank
	241-S-A	Valve Pit
	241-S-B	Valve Pit
	241-S-C	Valve Pit
	241-S-D	Valve Pit
	241-SX Tank Farm (15 Units)	Single-Shell Tank
	241-SX-151	Diversion Box
	241-SX-152	Diversion Box
	UN-200-W-10	Unplanned Release
	UN-200-W-80	Unplanned Release
	UN-200-W-81	Unplanned Release
200-TP-5	241-TX Tank Farm (18 Units)	Single-Shell Tank
	241-TX-153	Diversion Box
	241-TX-302A	Catch Tank
	241-TX-302-XB	Catch Tank
	241-TXR	Vault
	241-TXR-152	Diversion Box
	241-TXR-153	Diversion Box
	241-TY Tank Farm (6 Units)	Single-Shell Tank
	241-TY-153	Diversion Box
	241-TY-302A	Catch Tank
	241-TY-302B	Catch Tank
	242-T-151	Diversion Box
	244-TXR	Vault
	2607-WT	Septic Tank
	2607-WTX	Septic Tank

UN-200-W-17	Unplanned Release
UN-200-W-76	Unplanned Release
UN-200-W-100	Unplanned Release

S-2-4 Single Shell Tanks (continued)

200-TP-6	241-T Tank Farm (16 Units)	Single-Shell Tank
	241-T-151	Diversion Box
	241-T-152	Diversion Box
	241-T-153	Diversion Box
	241-T-252	Diversion Box
	241-T-301	Catch Tank
	241-T-302	Catch Tank
	241-TR-152	Diversion Box
	241-TR-153	Diversion Box
	UN-200-W-62	Unplanned Release
	UN-200-W-64	Unplanned Release
	UN-200-W-97	Unplanned Release
200-UP-3	241-U Tank Farm (16 Units)	Single-Shell Tank
	241-U-151	Diversion Box
	241-U-152	Diversion Box
	241-U-153	Diversion Box
	241-U-252	Diversion Box
	241-U-301	Catch Tank
	241-U-A	Diversion Box
	241-U-B	Diversion Box
	241-U-C	Diversion Box
	241-U-D	Diversion Box
	241-UR-151	Diversion Box
	241-UR-152	Diversion Box
	241-UR-153	Diversion Box
	241-UR-154	Diversion Box
	244-UR	Receiving Vault
	2607-WUT	Septic Tank
	UN-200-W-6	Unplanned Release

APPENDIX B

Listing of Treatment, Storage, and Disposal Groups/Units. (sheet 14 of 17)

Treatment, Storage, and Disposal			Planned Action	
Group Number	Group/Units	Operable Unit (if applicable)	Closure*	Operating Permit
T-2-5***	241-Z Treatment Tank (D-5)			Treatment
T-2-6	242-A Evaporator			Treatment
S-2-5	2727-S Nonradioactive Dangerous Waste Storage Facility		X	

TS-2-2	Hexone Storage and Treatment	X
	276-S-141 Tank	
	276-S-142 Tank	
	Railcar Storage Tanks (Future)	
	Distillation System (Future)	
	Incinerator (Future)	
T-3-1	300 Area Solvent Evaporator	X
TS-3-1	300 Area Waste Acid System	X
	313 Building Waste Acid Neutralization Tank	
	313 Building Centrifuge	
	313 Filter Press	
	333 Building Chromium Treatment Tanks (2 tanks)	
	***311 Neutralized Waste Tanks (2 tanks)	
	334-A Waste Acid Storage Tank (2 tanks)	

S-3-1	303-K Contaminated Waste Storage Facility		X	
T-3-2	303-M Uranium Oxide Facility	300-FF-2	X	
TS-3-2	304 Concretion Facility and Storage Area		X	
	304 Concretion Facility			
	304 Storage Area			
S-3-2	305-B Storage Facility			Storage
D-3-1	300 Area Process Trenches (316-5)	300-FF-1	X	
T-3-3**	324 Sodium Removal Pilot Plant			Treatment
T-3-4	325 Waste Treatment Facility			Treatment

TS-3-3	3718-F Alkali Metal Treatment and Storage Facility		X	
	3718-F Burn Shed			
	3718-F Treatment Tank #1			
	3718-F Treatment Tank #2			
	3718-F Alkali Metal Treatment Facility Storage			
T-4-1	400 Area Maintenance and Storage Facility (MASF)			Treatment
S-4-1	4843 FFTF Sodium Storage Facility		X	
D-6-1	600 Area Nonradioactive Dangerous Waste Landfill	200-IU-3	X	
S-6-1	616 Nonradioactive Dangerous Waste Storage Facility			Storage
TS-2-3	B Plant			
	B Plant Waste Concentrator			Treatment
	B Plant Settle and Decant Tank			Treatment
	B Plant Filter			Treatment
	B Plant Radioactive Organic Waste Solvent Tank #1			Storage
	B Plant Radioactive Organic Waste Solvent Tank #2			Storage
	B Plant Radioactive Organic Waste Solvent Tank #3			Storage
	B Plant Radioactive Organic Waste Solvent Tank #4			Storage
	B Plant Radioactive Organic Waste Solvent Tank #5			Storage
	B Plant Radioactive Organic Waste			Storage

	Solvent Tank #6	
	B Plant Radioactive Organic Waste Solvent Tank #7	Storage
	B Plant Storage Area	Storage
	B Plant Waste Pile	Storage
T-X-1	Biological Treatment Test Facilities	Treatment
TD-2-1	Grout	
	Grout Treatment Facility	Treatment
	Grout Treatment Facility Landfill	Treatment/Landfill
TS-2-4	Hanford Central Waste Complex	
	Waste Receiving and Processing (WRAP) Facility (Future)	Treatment
	Radioactive Mixed Waste Storage Facility	Storage

TS-2-5	Hanford Waste Vitrification Plant (HWVP) (Future)		Treatment/Storage
T-X-2	Physical and Chemical Treatment Test Facilities	X	
TS-2-6	Purex		
	*** Neutralization Tank E-5		Treatment
	*** E-F11 Concentrator		Treatment
	*** Neutralization Tank G-7		Treatment
	Ammonia Distillate Treatment System (Future Tank)		Treatment
	*** Neutralization Tank F-18		Treatment
	*** Neutralization Tank F-15		Treatment
	*** Neutralization Tank F-16		Treatment
	*** Neutralization Tank U3		Treatment
	*** Neutralization Tank U4		Treatment
	Purex Waste Piles		Storage
TS-3-4	Simulated High-Level Waste Slurry Treatment and Storage	X (or)	Treatment/Storage

T-2-7***	T Plant Treatment Tank		Treatment
T-X-3	Thermal Treatment Test Facilities	X	
T-11-1	1100 Area Hanford Patrol Academy Demolition Area	X	

*Post-Closure Permit required if closed as a land disposal unit in accordance with Subsection 6.3.2.
**Part A permit application may be withdrawn because unit(s) never handled or never will handle hazardous waste.
***Part A permit application may be withdrawn due to reclassification of unit(s) as treatment by generator.

Appendix C

Listing by Operable Unit. (Sheet 1 of 85)

OPERABLE UNIT Waste Unit Name	LEAD REGULATORY AGENCY Waste Unit Aliases	Unit Type	Status
1100-EM-1	**EPA**	**CPP**	
1100-1	1100-1, Battery Acid Pit, 1171 Building Sandpit Spills, UPR-1100-1	Depression/Pit (nonspecific)	Deleted from NPL (9/30/1996)
1100-2	1100-2, Paint and Solvent Pit, UPR-1100-2	Depression/Pit (nonspecific)	Deleted from NPL (9/30/1996)
1100-3	1100-3, Antifreeze and Degreaser Pit, Antifreeze Pit, UPR-1100-3	Depression/Pit (nonspecific)	Deleted from NPL (9/30/1996)
1100-4	1100-4, Antifreeze Tank Site, UN-1100-4, 1171 Building Spills, UPR-1100-4	Storage Tank	Deleted from NPL (9/30/1996)
1100-11	1100-11, Ephemeral Pool	Pond	Deleted from NPL (9/30/1996)
HRD	HRD, Horn Rapids Disposal, ITT Waste Disposal Landfill, Horn Rapid Landfill (HRL), Gravel Pit #4, Gravel Pit #5	Sanitary Landfill	Deleted from NPL (9/30/1996)
UPR-1100-5	UPR-1100-5, UN-1100-5, 1171 Parking Lot	Unplanned Release	Deleted from NPL (9/30/1996)
UPR-1100-6	UPR-1100-6, Discolored Soil Site, UN-1100-6	Depression/Pit (nonspecific)	Deleted from NPL (9/30/1996)
1100-EM-2	**EPA**	**CPP**	
700 WST	700 WST, 700 Area Waste Solvent Tank, 700 Area Underground Waste Solvent Tank, 703-1	Storage Tank	Deleted From NPL (9/30/1996)
1100 BSUHR	1100 BSUHR, 1100 Area Bus Shop Underground Hoist Rams	Storage Tank	Deleted from NPL (9/30/1996)
1100 HWSA	1100 HWSA, 1100 Area HWSA, 1100 Area Hazardous Waste Storage Area	Storage Pad (<90 day)	Deleted from NPL (9/30/1996)
1100 UOT4	1100 UOT4, 1100 Area Used Oil Tank 4, 1100 Area Underground Used Oil Tank (tank #4), 1171-4	Storage Tank	Deleted from NPL (9/30/1996)

Appendix C

Listing by Operable Unit. (Sheet 2 of 85)

OPERABLE UNIT Waste Unit Name	LEAD REGULATORY AGENCY Waste Unit Aliases	Unit Type	Status
1100-EM-2 **(continued)**			
1100 UOT5	1100 UOT5, 1100 Area Used Oil Tank 5, 1100 Area Underground Used Oil Tank (Tank #5), 1171-5	Storage Tank	Deleted from NPL (9/30/1996)
1100 UOT6	1100 UOT6, 1100 Area Used Oil Tank 6, 1100 Area Underground Used Oil Tank (Tank #6), 1171-6	Storage Tank	Deleted from NPL (9/30/1996)
1100 USPT2	1100 USPT2, 1100 Area Underground Steam Pad Tank 2, 1171-2	Storage Tank	Deleted from NPL (9/30/1996)
1100 USPT3	1100 USPT3, 1100 Area Underground Steam Pad Tank 3, 1171-3	Storage Tank	Deleted from NPL (9/30/1996)
1100-8	1100-8, 1171 Hoist Oil Leak	Unplanned Release	Deleted from NPL (9/30/1996)
1100-EM-3	**EPA**	**CPP**	
3000 JYHWSA	3000 JYHWSA, 3000 Area Jones Yard HWSA, 3000 Area Jones Yard Hazardous Waste Storage Area, Hazardous Waste Storage Area (Jones Yard)	Storage Pad (<90 day)	Deleted from NPL (9/30/1996)
3000 UUOT	3000 UUOT, 3000 Area Underground Used Oil Tank, 3000-12	Storage Tank	Deleted from NPL (9/30/1996)
3000/1208 HWSA	3000/1208 HWSA, 3000 Area 1208 HWSA, 3000 Area 1208 Building Hazardous Waste Storage Area, Hazardous Waste Storage Area (1208)	Storage Pad (<90 day)	Deleted from NPL (9/30/1996)
3000/1226 HWSA	3000/1226 HWSA, 3000 Area 1226 HWSA, 3000 Area 1226 Building Hazardous Waste Storage Area, Hazardous Waste Storage Area (1226)	Storage Pad (<90 day)	Deleted from NPL (9/30/1996)
3000/1234	3000/1234, 1234 Laydown Yard, 3000 Area 1234 Storage Yard, 1234 Building Storage Yard	Storage	Deleted from NPL (9/30/1996)

Appendix C

Listing by Operable Unit. (Sheet 3 of 85)

OPERABLE UNIT Waste Unit Name	LEAD REGULATORY AGENCY Waste Unit Aliases	Unit Type	Status
1100-EM-3 **(continued)**			
3000/1240 HWSA	3000/1240 HWSA, 3000 Area 1240 HWSA, 3000 Area 1240 Building Hazardous Waste Storage Area, Hazardous Waste Storage Area (1240)	Storage Pad (<90 day)	Deleted from NPL (9/30/1996)
UPR-3000-1	UPR-3000-1, UN-3000-1	Unplanned Release	Deleted from NPL (9/30/1996)
1100-IU-1	**EPA**	**CPP**	
600-28	600-28, Rattlesnake Construction Dump	Dumping Area	Deleted from NPL (9/30/1996)
600-112*	600-112, 6652-C SSLAST, 6652-C SSL Active Septic Tank, 6652-C Space Science Laboratory Active Septic Tank	Septic Tank	Deleted from NPL (9/30/1996)
600-113	600-113, 6652-C SSLIST, 6652-C SSL Inactive Septic Tank, 6652-C Space Science Laboratory Inactive Septic Tank	Septic Tank	Deleted from NPL (9/30/1996)
600-114	600-114, 6652-G ALEFSBST, 6652-G ALE Field Storage Building Septic Tank, 6607-14B	Septic Tank	Deleted from NPL (9/30/1996)
600-115	600-115, 6652-I ALEHST, 6652-I ALE Headquarters Septic Tank, 6652-I Arid Lands Ecology (ALE) Headquarters Septic Tank, 6607-14	Septic Tank	Deleted from NPL (9/30/1996)
600-116	600-116, RMNMB, Rattlesnake Mountain Nike Missile Base	Military Compound	Deleted from NPL (9/30/1996)
100-BC-1	**EPA**	**CPP**	
100-B-3	100-B-3, Hot Thimble Burial Ground, Undocumented Solid Waste Site	Burial Ground	Interim Record of Decision, 100 Area Remaining Sites (1999)†
100-B-5	100-B-5, Effluent Vent Disposal Trench, 116-B-9, 105-B Effluent Vent Trench	Trench	Interim Record of Decision, 100 Area Remaining Sites (1999)†
100-B-8	100-B-8, 100-B Reactor Cooling Water Effluent Underground Pipelines	Radioactive Process Sewer	Interim Remedial Action Record of Decision, 100-BC-1, 100-DR-1, 100-HR-1 (1995)
100-B-10	100-B-10, 107-B Basin Leak and Warm Springs	Unplanned Release	Interim Record of Decision, 100 Area Remaining Sites (1999)†

Appendix C

Listing by Operable Unit. (Sheet 4 of 85)

OPERABLE UNIT Waste Unit Name	LEAD REGULATORY AGENCY Waste Unit Aliases	Unit Type	Status
100-BC-1 **(continued)**			
116-B-1	116-B-1, 107-B Liquid Waste Disposal Trench, Process Effluent Trench	Trench	Closed Out (12/8/1999)
116-B-2	116-B-2, 105-B Storage Basin Trench, B-Storage Basin Crib	Trench	Interim Remedial Action Record of Decision, 100-BC-1, 100-DR-1, 100-HR-1 (1995)
116-B-3	116-B-3, 105-B Pluto Crib	Crib	Interim Remedial Action Record of Decision, 100-BC-1, 100-DR-1, 100-HR-1 (1995)
116-B-4	116-B-4, 105-B Dummy Decontamination French Drain, 105-B Dummy Decontamination Disposal Crib	French Drain	Interim Remedial Action Record of Decision, 100-BC-1, 100-DR-1, 100-HR-1 (1995)
116-B-5	116-B-5, 116-B-5 Crib, 116-B-5 Trench, 108-B Crib	Crib	Closed Out (1/8/1997)
116-B-6A	116-B-6A, 111-B Crib No. 1, 116-B-6-1	Crib	Interim Remedial Action Record of Decision, 100-BC-1, 100-DR-1, 100-HR-1 (1995)
116-B-6B	116-B-6B, 111-B Crib No. 2, 116-B-6-2	Crib	Interim Remedial Action Record of Decision, 100-BC-1, 100-DR-1, 100-HR-1 (1995)
116-B-7	116-B-7, 1904-B-1 Outfall Structure, 1904-B1	Outfall	Interim Record of Decision, 100 Area Remaining Sites (1999)†
116-B-9	116-B-9, 104-B-2 French Drain	French Drain	Interim Remedial Action Record of Decision, 100-BC-1, 100-DR-1, 100-HR-1 (1995)
116-B-10	116-B-10, 108-B Dry Well, Quench Tank	Sump	Interim Remedial Action Record of Decision, 100-BC-1, 100-DR-1, 100-HR-1 (1995)
116-B-11	116-B-11, 107-B Retention Basin, 116-B-11 Retention Basin	Retention Basin	Closed Out (12/8/1999)
116-B-12	116-B-12, 117-B Crib, 117-B Seal Pit Crib	Crib	Interim Remedial Action Record of Decision, 100-BC-1, 100-DR-1, 100-HR-1 (1995)
116-B-13	116-B-13, 107-B South Sludge Trench, 116-B-8, 107-B #2 Grave, Basin Sludge Burial Pit	Trench	Closed Out (7/22/1999)
116-B-14	116-B-14, 107-B North Sludge Trench, 107-B Liquid Waste Disposal Trench No. 1, 116-B-2, 107-B #1 Grave	Trench	Closed Out (7/22/1999)

Appendix C

Listing by Operable Unit. (Sheet 5 of 85)

OPERABLE UNIT Waste Unit Name	LEAD REGULATORY AGENCY Waste Unit Aliases	Unit Type	Status
100-BC-1 **(continued)**			
116-B-15	116-B-15, 105-B Fuel Storage Basin Cleanout Percolation Pit, 105-B Fuel Storage Discharge Pond, 105-B Pond	Pond	Interim Record of Decision, 100 Area Remaining Sites (1999)†
116-B-16	116-B-16, 111-B Fuel Examination Tank	Storage Tank	Interim Remedial Action Record of Decision, 100-BC-1, 100-DR-1, 100-HR-1 (1995); Proximity Site to 116-B-6A
118-B-5	118-B-5, Ball 3X Burial Ground	Burial Ground	
118-B-7	118-B-7, 111-B Solid Waste Burial Site	Burial Ground	
118-B-10	118-B-10, Ball 3X Storage Vault	Storage Tank	
120-B-1	120-B-1, 105-B Battery Acid Sump	Sump	Interim Record of Decision, 100 Area Remaining Sites (1999)†
126-B-3	126-B-3, 184-B Coal Pit	Dumping Area	Interim Record of Decision, 100 Area Remaining Sites (1999)†
128-B-2	128-B-2, 100-B Burn Pit #2	Burn Pit	Interim Record of Decision, 100 Area Remaining Sites (1999)†
128-B-3	128-B-3, 100-B Dump Site, 128-B-3 Coal Ash and Demolition Waste Site, 128-B-3 Burning Pit Site, 600-57	Burn Pit	Interim Record of Decision, 100 Area Remaining Sites (1999)†
132-B-1	132-B-1, 108-B Tritium Separation Facility	Process Unit/Plant	Interim Record of Decision, 100 Area Remaining Sites (1999)†
132-B-3	132-B-3, 108-B Ventilation Exhaust Stack Site, 108-B Tritium Pilot Facility, Ventilation Exhaust Stack Site	Burial Ground	Interim Record of Decision, 100 Area Remaining Sites (1999)†
132-B-4	132-B-4, 117-B Filter Building	Process Unit/Plant	Interim Record of Decision, 100 Area Remaining Sites (1999)†
132-B-5	132-B-5, 115-B/C Gas Recirculation Facility	Process Unit/Plant	Interim Record of Decision, 100 Area Remaining Sites (1999)†
132-B-6	132-B-6, 1904-B-2 Outfall Structure Site, 116-B-8, 1904-B2	Outfall	Interim Record of Decision, 100 Area Remaining Sites (1999)†
1607-B2*	1607-B2, 1607-B2 Septic Tank System, 124-B-2, 1607-B2 Sanitary Sewer System	Septic Tank	Interim Record of Decision, 100 Area Remaining Sites (1999)†

Appendix C

Listing by Operable Unit. (Sheet 6 of 85)

OPERABLE UNIT Waste Unit Name	LEAD REGULATORY AGENCY Waste Unit Aliases	Unit Type	Status
100-BC-1 **(continued)**			
1607-B7	1607-B7, 1607-B7 Septic Tank System, 1607-B7 Sanitary Sewer System, 124-C-1	Septic Tank	Interim Record of Decision, 100 Area Remaining Sites (1999)†
116-C-1	116-C-1, 107-C Liquid Waste Disposal Trench	Trench	Closed Out (1/21/1999)
116-C-5	116-C-5, 116-C-5 Retention Basins, 107-C Retention Basins	Retention Basin	Closed Out (12/8/1999)
132-C-2	132-C-2, 1904-C Outfall, 116-C-4	Outfall	Interim Record of Decision, 100 Area Remaining Sites (1999)†
100-BC-2	**EPA**	**CPP**	
100-B-1	100-B-1, Surface Chemical and Solid Waste Dumping Area, Laydown Yard	Dumping Area	Interim Record of Decision, 100 Area Remaining Sites (1999)†
118-B-1	118-B-1, 105-B Burial Ground, 105-B Solid Waste Burial Ground, Operations, Solid Waste Burial Ground, 108-B Burial Ground, Ext. to BG No. 1	Burial Ground	
118-B-2	118-B-2, Construction Burial Ground No. 1, Minor Construction Burial, Ground No. 1	Burial Ground	
118-B-3	118-B-3, Construction Burial Ground No. 2	Burial Ground	
118-B-4	118-B-4, 105-B Spacer Burial Ground, 105-B Dummy Burial Ground	Burial Ground	
118-B-6	118-B-6, 108-B Solid Waste Burial Ground, 108-B Solid Waste Burial Ground, No. 2	Burial Ground	
1607-B8	1607-B8, 1607-B8 Septic Tank System, 124-C-2, 1607-B8 Sanitary Sewer System, Septic Tank & Disposal Field for 190-C Pumphouse	Septic Tank	Interim Record of Decision, 100 Area Remaining Sites (1999)†
1607-B9	1607-B9, 1607-B9 Septic Tank System, 1607-B9 Sanitary Sewer System, 124-C-3	Septic Tank	Interim Record of Decision, 100 Area Remaining Sites (1999)†
1607-B10	1607-B10, 1607-B10 Septic Tank System, Sewage Disposal Field	Septic Tank	Interim Record of Decision, 100 Area Remaining Sites (1999)†
1607-B11	1607-B11, 1607-B11 Septic Tank System	Septic Tank	Interim Record of Decision, 100 Area Remaining Sites (1999)†

Appendix C

Listing by Operable Unit. (Sheet 7 of 85)

OPERABLE UNIT Waste Unit Name	LEAD REGULATORY AGENCY Waste Unit Aliases	Unit Type	Status
100-BC-2 **(continued)**			
100-C-3	100-C-3, 119-C Sample Building French Drain, 119-C French Drain	French Drain	Interim Record of Decision, 100 Area Remaining Sites (1999)†
100-C-6	100-C-6, 100-C Reactor Cooling Water Effluent Underground Pipelines	Radioactive Process Sewer	Interim Remedial Action Record of Decision, 100-BC-1, 100-DR-1, 100-HR-1 (1995)
100-C-7	100-C-7, 183-C Filter Building /Pumproom Facility Foundation and Demolition Waste	Dumping Area	Interim Record of Decision, 100 Area Remaining Sites (1999)†
116-C-2A	116-C-2A, 105-C Pluto Crib, 116-C-2, 105-C Crib	Crib	Amendment to the Interim Remedial Action Record of Decision, 100-BC-1, 100-DR-1, 100-HR-1 (1995) (1997)
116-C-2B	116-C-2B, 105-C Pluto Crib Pump Station, 116-C-2-1, 116-C-2B Pump Station	Pump Station	Amendment to the Interim Remedial Action Record of Decision, 100-BC-1, 100-DR-1, 100-HR-1 (1995) (1997)
116-C-2C	116-C-2C, 105-C Pluto Crib Sand Filter, 116-C-2-2, 116-C-8	Sand Filter	Amendment to the Interim Remedial Action Record of Decision, 100-BC-1, 100-DR-1, 100-HR-1 (1995) (1997)
116-C-3	116-C-3, 105-C Chemical Waste Tanks	Storage Tank	Interim Record of Decision, 100 Area Remaining Sites (1999)†
116-C-6	116-C-6, 105-C Fuel Storage Basin Cleanout Percolation Pit, 105-C Pond	Pond	Interim Record of Decision, 100 Area Remaining Sites (1999)†
118-C-1	118-C-1, 105-C Burial Ground, 105-C Solid Waste Burial Ground, 118-C-1, Burial Ground	Burial Ground	
118-C-2	118-C-2, 105-C Ball Storage Tank, Ball 3X Storage Tank	Storage Tank	
128-C-1	128-C-1, 100-C Burning Pit	Burn Pit	Interim Record of Decision, 100 Area Remaining Sites (1999)†
132-C-1	132-C-1, 116-C Reactor Exhaust Stack Site, 105-C Reactor Stack Site,	Burial Ground	Interim Record of Decision, 100 Area Remaining Sites (1999)†
132-C-3	132-C-3, 117-C Filter Building	Process Unit/Plant	Interim Record of Decision, 100 Area Remaining Sites (1999)†
600-33	600-33, 105-C Reactor Test Loop Burial Site	Burial Ground	
100-DR-1	**Ecology**	**CPP**	
100-D-1	100-D-1, Contaminated Drain, Contaminated Storm Drain	Process Sewer	Interim Record of Decision, 100 Area Remaining Sites (1999)†

Appendix C

Listing by Operable Unit. (Sheet 8 of 85)

OPERABLE UNIT Waste Unit Name	LEAD REGULATORY AGENCY Waste Unit Aliases	Unit Type	Status
100-DR-1 **(continued)**			
100-D-2	100-D-2, Solid Waste Site, Lead Sheeting	Foundation	Interim Record of Decision, 100 Area Remaining Sites (1999)†
100-D-3	100-D-3, Solid Waste Burial Ground, Silica Gel	Burial Ground	Interim Record of Decision, 100 Area Remaining Sites (1999)†
100-D-4	100-D-4, Sludge Trench #5, 107-DR Sludge Trench #5, 107-D-5, 107-D5	Trench	Closed Out (3/25/1999)
100-D-5	100-D-5, Waste Site Near 103-D, Undocumented Solid Waste Site, Undocumented Solid Waste Site Near 103-D	Burial Ground	
100-D-6	100-D-6, Buried VSR Thimble, Minor Construction Burial Ground #1, Burial Ground 4D, 118-D-4D	Burial Ground	
100-D-7	100-D-7, Undocumented Solid Waste Site	Dumping Area	Interim Record of Decision, 100 Area Remaining Sites (1999)†
100-D-8	100-D-8, 105-DR Process Sewer Outfall Site, Undocumented Liquid Waste Site, 1907-DR	Outfall	Interim Record of Decision, 100 Area Remaining Sites (1999)†
100-D-18	100-D-18, Sludge Trench #4, 107-D Sludge Trench #4, 107-D-4, 107-D4	Trench	Interim Remedial Action Record of Decision, 100-BC-1, 100-DR-1, 100-HR-1 (1995)
100-D-19	100-D-19, Sludge Trench #6, 107-D Sludge Trench #6	Trench	Interim Record of Decision, 100 Area Remaining Sites (1999)†
100-D-20	100-D-20, Sludge Trench #3, 107-D Sludge Trench #3, 107-D-3, 107-D3	Trench	Closed Out (3/25/1999)
100-D-21	100-D-21, Sludge Trench #2, 107-DR Sludge Trench #2, 107-D-2, 107-D2	Trench	Closed Out (3/25/1999)
100-D-22	100-D-22, Sludge Trench #1, 107-DR Sludge Trench #1, 107-D-1, 107-D1	Trench	Closed Out (3/25/1999)
100-D-24	100-D-24, 119D Sample Building Drywell	French Drain	Interim Record of Decision, 100 Area Remaining Sites (1999)†
100-D-25	100-D-25, Unplanned Release: 107-DR Basin Leaks	Unplanned Release	Closed Out (1/6/2000)

Appendix C

Listing by Operable Unit. (Sheet 9 of 85)

OPERABLE UNIT Waste Unit Name	LEAD REGULATORY AGENCY Waste Unit Aliases	Unit Type	Status
100-DR-1 **(continued)**			
100-D-29	100-D-29, Effluent Line Leak #2	Unplanned Release	Interim Remedial Action Record of Decision, 100-BC-1, 100-DR-1, 100-HR-1 (1995); Proximity Site to 100-D-48, 100-D-49
100-D-30	100-D-30, 190-D Sodium Dichromate Soil Contamination, 185-D, 189-D Decontamination & Demolition Project, 185-D Sodium Dichromate Trench & Sump	Unplanned Release	Interim Record of Decision, 100 Area Remaining Sites (1999)†
100-D-31	100-D-31,100-D Water Treatment Facilities Underground Pipelines	Process Sewer	Interim Record of Decision, 100 Area Remaining Sites (1999)†
100-D-32	100-D-32, Minor Construction Burial Ground #6	Burial Ground	
100-D-33	100-D-33, Minor Construction Burial Ground #4 East Trench	Burial Ground	
100-D-35	100-D-35, Minor Construction Burial Ground #4 West Trench	Burial Ground	
100-D-41	100-D-41, Minor Construction Burial Ground #5 Trench, 118-18, 118-D-18	Burial Ground	
100-D-42	100-D-42, Buried VSR Thimble Site	Burial Ground	
100-D-45	100-D-45, Buried VSR Thimble Site, Burial Ground 4B, 118-D-4B	Burial Ground	
100-D-48	100-D-48, 100-D Reactor Cooling Water Effluent Underground Pipelines	Radioactive Process Sewer	Interim Remedial Action Record of Decision, 100-BC-1, 100-DR-1, 100-HR-1 (1995)
100-D-48:1	100-D-48:1, North Pipelines from 116-D-7 to the Outfalls		
100-D-48:2	100-D-48:2, West Pipelines from D Avenue to 116-D-7		
100-D-48:3	100-D-48:3, Effluent Pipelines from D Avenue to 105-D Reactor		
100-D-49	100-D-49, 100-DR Reactor Cooling Water Effluent Underground Pipelines	Radioactive Process Sewer	Interim Remedial Action Record of Decision, 100-BC-1, 100-DR-1, 100-HR-1 (1995)
100-D-49:1	100-D-49:1, North Pipelines from 116-DR-9 to the Outfalls		
100-D-49:2	100-D-49:2, East Pipelines from D Avenue to 116-DR-9		
100-D-49:3	100-D-49:3, Effluent Pipelines from D Avenue to 105-DR Reactor		

Appendix C

Listing by Operable Unit. (Sheet 10 of 85)

OPERABLE UNIT Waste Unit Name	LEAD REGULATORY AGENCY Waste Unit Aliases	Unit Type	Status
100-DR-1 **(continued)**			
100-D-52	100-D-52, 105-D Downcomer Insulation Space Dry Well	French Drain	Interim Remedial Action Record of Decision, 100-BC-1, 100-DR-1, 100-HR-1 (1995); Proximity Site to 100-D-48
116-D-1A	116-D-1A, 105-D Storage Basin Trench #1	Trench	Interim Remedial Action Record of Decision, 100-BC-1, 100-DR-1, 100-HR-1 (1995)
116-D-1B	116-D-1B, 105-D Storage Basin Trench #2	Trench	Interim Remedial Action Record of Decision, 100-BC-1, 100-DR-1, 100-HR-1 (1995)
116-D-2	116-D-2, 105-D Pluto Crib, 116-D-2A	Crib	Interim Remedial Action Record of Decision, 100-BC-1, 100-DR-1, 100-HR-1 (1995)
116-D-3	116-D-3, 108-D Crib #1	Crib	Amendment to the Interim Remedial Action Record of Decision, 100-BC-1, 100-DR-1, 100-HR-1 (1995) (1997)
116-D-4	116-D-4, 108-D Crib #2	Crib	Interim Remedial Action Record of Decision, 100-BC-1, 100-DR-1, 100-HR-1 (1995)
116-D-5	116-D-5, 1904-D Outfall Structure	Outfall	Interim Record of Decision, 100 Area Remaining Sites (1999)†
116-D-6	116-D-6, 105-D Cushion Corridor French Drain	French Drain	Interim Remedial Action Record of Decision, 100-BC-1, 100-DR-1, 100-HR-1 (1995)
116-D-7	116-D-7, 107-D Retention Basin, 107-D	Retention Basin	Interim Remedial Action Record of Decision, 100-BC-1, 100-DR-1, 100-HR-1 (1995)
116-D-9	116-D-9, 117-D Crib, 117-D Seal Pit Crib	Crib	Interim Remedial Action Record of Decision, 100-BC-1, 100-DR-1, 100-HR-1 (1995)
116-D-10	116-D-10, 105-D Fuel Storage Basin Cleanout Percolation Pit, 105-D Fuel Storage Discharge Ponds, 105-D Ponds	Pond	Interim Record of Decision, 100 Area Remaining Sites (1999)†
120-D-2	120-D-2, 186-D Waste Acid Reservoir	Surface Impoundment	Interim Record of Decision, 100 Area Remaining Sites (1999)†
126-D-2	126-D-2, 184-D Coal Pit/Burial Ground	Burial Ground	
128-D-2	128-D-2, 128-D-2 Burn Pit	Burn Pit	Interim Record of Decision, 100 Area Remaining Sites (1999)†
130-D-1	130-D-1, 1716-D Gasoline Storage Tank, 1706-D Gasoline Storage Tank	Storage Tank	Interim Record of Decision, 100 Area Remaining Sites (1999)†

Appendix C

Listing by Operable Unit. (Sheet 11 of 85)

OPERABLE UNIT Waste Unit Name	LEAD REGULATORY AGENCY Waste Unit Aliases	Unit Type	Status
100-DR-1 (continued)			
132-D-1	132-D-1, 115-D/DR Gas Recirculating Facility	Process Unit/Plant	Interim Record of Decision, 100 Area Remaining Sites (1999)†
132-D-2	132-D-2, 117-D Filter Building	Process Unit/Plant	Interim Record of Decision, 100 Area Remaining Sites (1999)†
132-D-3	132-D-3, 1608-D Waste Water Pumping Station, 1608-D Effluent Pumping Station	Pump Station	Interim Record of Decision, 100 Area Remaining Sites (1999)†
1607-D2	1607-D2, 1607-D2 Septic Tank and Associated Drain Fields, 124-D-2, 1607-D2 Sanitary Sewer System, 1607-D2 Septic Tank	Septic Tank	Interim Remedial Action Record of Decision, 100-BC-1, 100-DR-1, 100-HR-1 (1995); Proximity Site to 100-D-48
1607-D2:1	1607-D2:1, Original 1607-D2 Tile Field, Eastern 1607-D2 Tile Field		Closed Out (3/25/1999)
1607-D2:2	1607-D2:2 Replacement 1607-D2 Tile Field, Northern Tile Field		
1607-D2:3	1607-D2:3, Sanitary Sewer Pipelines		
1607-D2:4	1607-D2:4, 1607-D2 Septic Tank		Closed Out (11/23/1999)
1607-D4	1607-D4, 1607-D4 Septic Tank and Associated Drain Field, 124-D-4, 1607-D4 Sanitary Sewer System, 1607-D4 Septic Tank	Septic Tank	Interim Record of Decision, 100 Area Remaining Sites (1999)†
1607-D5*	1607-D5, 1607-D5 Septic Tank and Associated Drain Field, 124-D-5, 1607-D5 Sanitary Sewer System, 1607-D5 Septic Tank	Septic Tank	Interim Record of Decision, 100 Area Remaining Sites (1999)†
116-DR-1&2	116-DR-1&2, 107-DR Liquid Waste Disposal Trench #1, 107-DR Liquid Waste Disposal Trench #2, 116-DR-1, 116-DR-2	Trench	Interim Remedial Action Record of Decision, 100-BC-1, 100-DR-1, 100-HR-1 (1995)
116-DR-5	116-DR-5, 1904-DR Outfall Structure, 1904-DR	Outfall	Interim Record of Decision, 100 Area Remaining Sites (1999)†
116-DR-9	116-DR-9, 107-DR Retention Basin, 107-DR	Retention Basin	Closed Out (1/6/2000)
628-3	628-3, 628-3 Burn Pit	Burn Pit	Interim Record of Decision, 100 Area Remaining Sites (1999)†
UPR-100-D-1	UPR-100-D-1, Oil Soaked Soil	Unplanned Release	Interim Record of Decision, 100 Area Remaining Sites (1999)†
UPR-100-D-2	UPR-100-D-2, Effluent Line Leak #1	Unplanned Release	Interim Remedial Action Record of Decision, 100-BC-1, 100-DR-1, 100-HR-1 (1995); Proximity Site to 100-D-48, 100-D-49

Appendix C

Listing by Operable Unit. (Sheet 12 of 85)

OPERABLE UNIT Waste Unit Name	LEAD REGULATORY AGENCY Waste Unit Aliases	Unit Type	Status
100-DR-1 **(continued)**			
UPR-100-D-3	UPR-100-D-3, Effluent Line Leak #3	Unplanned Release	Interim Remedial Action Record of Decision, 100-BC-1, 100-DR-1, 100-HR-1 (1995); Proximity Site to 100-D-48, 100-D-49
UPR-100-D-4	UPR-100-D-4, Unplanned Release: 107-D Basin Leaks	Unplanned Release	Interim Remedial Action Record of Decision, 100-BC-1, 100-DR-1, 100-HR-1 (1995); Proximity Site to 100-D-48, 100-D-49
UPR-100-D-5	UPR-100-D-5, Effluent Line Leak #4	Unplanned Release	Interim Remedial Action Record of Decision, 100-BC-1, 100-DR-1, 100-HR-1 (1995); Proximity Site to 100-D-48, 100-D-49
100-DR-2	**Ecology**	**RPP**	
100-D-12	100-D-12, Sodium Dichromate / Acid Railcar and Truck Unload Station and Associated French Drain, Undocumented Liquid Waste Site	Pump Station	Interim Record of Decision, 100 Area Remaining Sites (1999)†
100-D-13	100-D-13, Unnumbered Septic System A, Septic Tank D-13, 100 DR Area Sewage Disposal Unit.124-DR-3, 1607-DR3	Septic Tank	Interim Record of Decision, 100 Area Remaining Sites (1999)†
100-D-15	100-D-15, Debris North of 100-D Area Perimeter Road and Debris South of 100-D Perimeter Road - within 100-D-55 (Gravel Pit #21)	Dumping Area	Interim Record of Decision, 100 Area Remaining Sites (1999)†
100-D-23	100-D-23, 119-DR Sample Building Drywell	French Drain	Interim Record of Decision, 100 Area Remaining Sites (1999)†
100-D-27	100-D-27, 151-D Substation UPR, A-2 Substation Transformer #A401C Leak	Unplanned Release	Interim Record of Decision, 100 Area Remaining Sites (1999)†
100-D-28	100-D-28, 190-DR Building Septic System	Septic Tank	Interim Record of Decision, 100 Area Remaining Sites (1999)†
100-D-40	100-D-40, Minor Construction Burial Ground #5 Hole	Burial Ground	
100-D-43	100-D-43, Buried VSR Thimble Site, Burial Ground 4C, 118-D-4C	Burial Ground	

Appendix C

Listing by Operable Unit. (Sheet 13 of 85)

OPERABLE UNIT Waste Unit Name	LEAD REGULATORY AGENCY Waste Unit Aliases	Unit Type	Status
100-DR-2 **(continued)**			
100-D-46	100-D-46, Burial Ground 4A, 118-D-4A	Burial Ground	
100-D-47	100-D-47, Construction C.G. 558-Rod Burial, Burial Ground 4E, 118-D-4E	Burial Ground	
116-D-8	116-D-8, 100-D Cask Storage Pad	Storage	Interim Record of Decision, 100 Area Remaining Sites (1999)†
118-D-1	118-D-1, 100-D Burial Ground No. 1	Burial Ground	
118-D-2	118-D-2, 100-D Burial Ground No. 2	Burial Ground	
118-D-3	118-D-3, 100-D Burial Ground No. 3	Burial Ground	
118-D-4	118-D-4, Construction Burial Ground, Burial Ground 4F, 118-D-4F	Burial Ground	
118-D-5	118-D-5, Ball 3X Burial Ground, Burial Ground 4G, 118-D-4G	Burial Ground	
128-D-1	128-D-1, 100 D/DR Burning Pit	Burn Pit	Interim Record of Decision, 100 Area Remaining Sites (1999)†
116-DR-3	116-DR-3, 105-DR Storage Basin Trench	Trench	Amendment to the Interim Remedial Action Record of Decision, 100-BC-1, 100-DR-1, 100-HR-1 (1995) (1997)
116-DR-4	116-DR-4, 105-DR Pluto Crib	Crib	Amendment to the Interim Remedial Action Record of Decision, 100-BC-1, 100-DR-1, 100-HR-1 (1995) (1997)
116-DR-6	116-DR-6, 1608-DR Liquid Disposal Trench, Wash Pad Liquid Waste Site 3C	Trench	Amendment to the Interim Remedial Action Record of Decision, 100-BC-1, 100-DR-1, 100-HR-1 (1995) (1997)
116-DR-7	116-DR-7, 105-DR Inkwell Crib	Crib	Interim Record of Decision, 100 Area Remaining Sites (1999)†
116-DR-8	116-DR-8, 117-DR Crib, 117-DR Seal Pit Crib	Crib	Interim Record of Decision, 100 Area Remaining Sites (1999)†
116-DR-10	116-DR-10, 105-DR Fuel Storage Basin Cleanout Percolation, 105-DR Fuel Storage Discharge Pond, 105-DR Pond	Pond	Interim Record of Decision, 100 Area Remaining Sites (1999)†
118-DR-1	118-DR-1, 105-DR Gas Loop Burial Ground	Burial Ground	
126-DR-1*	126-DR-1, 190-DR Clearwell Tank Pit	Dumping Area	

Appendix C

Listing by Operable Unit. (Sheet 14 of 85)

OPERABLE UNIT Waste Unit Name	LEAD REGULATORY AGENCY Waste Unit Aliases	Unit Type	Status
100-DR-2 **(continued)**			
132-DR-1	132-DR-1, 1608-DR Waste Water Pumping Station, 1608-DR Effluent Pumping Station	Pump Station	Interim Record of Decision, 100 Area Remaining Sites (1999)†
600-30	600-30, 100-DR Construction Lay-down Area	Dumping Area	Interim Record of Decision, 100 Area Remaining Sites (1999)†
100-FR-1	**EPA**	**CPP**	
141-C	141-C, 141-C Animal Barn, Large Animal Barn & Biology Laboratory, Hog Barn	Laboratory	Interim Record of Decision, 100 Area Remaining Sites (1999)†
100-F-4	100-F-4, 108-F Building 12-inch French Drain	French Drain	Interim Record of Decision, 100 Area Remaining Sites (1999)†
100-F-7	100-F-7, Underground Fuel Tank - 1705-F Building	Storage Tank	Interim Record of Decision, 100 Area Remaining Sites (1999)†
100-F-9	100-F-9, French Drain at East End of 105-F Storage Room (Northeast Corner)	French Drain	Interim Record of Decision, 100 Area Remaining Sites (1999)†
100-F-10	100-F-10, French Drain at East End of 105-F Storage Room (Southeast Corner)	French Drain	Interim Record of Decision, 100 Area Remaining Sites (1999)†
100-F-11	100-F-11, 108-F Building 18 inch French Drain	French Drain	Interim Record of Decision, 100 Area Remaining Sites (1999)†
100-F-12	100-F-12, 36 inch French Drain at 105-F Building	French Drain	Interim Record of Decision, 100 Area Remaining Sites (1999)†
100-F-16	100-F-16, 108-F Building 30-inch French Drain, Undocumented	French Drain	Interim Record of Decision, 100 Area Remaining Sites (1999)†
100-F-18	100-F-18, 105-F Condensate Drain Field, Underground Tank at 105-F Building, Undocumented	Drain/Tile Field	Interim Record of Decision, 100 Area Remaining Sites (1999)†
100-F-19	100-F-19, 100-F Reactor Cooling Water Effluent Underground Pipelines, Contaminated Underground Lines, Effluent Water System, 1904-F Process Sewer	Radioactive Process Sewer	Amendment to the Interim Remedial Action Record of Decision, 100-BC-1, 100-DR-1, 100-HR-1 (1995) (1997)
100-F-23	100-F-23, 141-C Drywell	French Drain	Interim Record of Decision, 100 Area Remaining Sites (1999)†

Appendix C

Listing by Operable Unit. (Sheet 15 of 85)

OPERABLE UNIT Waste Unit Name	LEAD REGULATORY AGENCY Waste Unit Aliases	Unit Type	Status
100-FR-1 **(continued)**			
100-F-24	100-F-24, 145-F Drywell	French Drain	Interim Record of Decision, 100 Area Remaining Sites (1999)†
100-F-25	100-F-25, 146-FR Drywells	French Drain	Interim Record of Decision, 100 Area Remaining Sites (1999)†
100-F-29	100-F-29, 100-F Experimental Animal Farm Process Sewer Pipelines	Radioactive Process Sewer	Interim Record of Decision, 100 Area Remaining Sites (1999)†
100-F-31	100-F-31, 144-F Sanitary Sewer System	Septic Tank	Interim Record of Decision, 100 Area Remaining Sites (1999)†
100-F-33	100-F-33, 146-F Aquatic Biology Fish Ponds	Unplanned Release	Interim Record of Decision, 100 Area Remaining Sites (1999)†
100-F-34	100-F-34, Biology Facility French Drain	French Drain	Interim Record of Decision, 100 Area Remaining Sites (1999)†
116-F-1	116-F-1, Lewis Canal	Trench	Amendment to the Interim Remedial Action Record of Decision, 100-BC-1, 100-DR-1, 100-HR-1 (1995) (1997)
116-F-2	116-F-2, 107-F Liquid Waste Disposal Trench	Trench	Amendment to the Interim Remedial Action Record of Decision, 100-BC-1, 100-DR-1, 100-HR-1 (1995) (1997)
116-F-3	116-F-3, 105-F Storage Basin Trench	Trench	Amendment to the Interim Remedial Action Record of Decision, 100-BC-1, 100-DR-1, 100-HR-1 (1995) (1997)
116-F-4	116-F-4, 105-F Pluto Crib	Crib	Amendment to the Interim Remedial Action Record of Decision, 100-BC-1, 100-DR-1, 100-HR-1 (1995) (1997)
116-F-5	116-F-5, Ball Washer Crib	Crib	Amendment to the Interim Remedial Action Record of Decision, 100-BC-1, 100-DR-1, 100-HR-1 (1995) (1997)
116-F-6	116-F-6, 1608-F Liquid Waste Disposal Trench, 105-F Cooling Water Trench	Trench	Amendment to the Interim Remedial Action Record of Decision, 100-BC-1, 100-DR-1, 100-HR-1 (1995) (1997)
116-F-7	116-F-7, 117-F Crib, 116-F-7 Seal Pit Water Crib	French Drain	Interim Record of Decision, 100 Area Remaining Sites (1999)†
116-F-8	116-F-8, 1904-F Outfall Structure	Outfall	Interim Record of Decision, 100 Area Remaining Sites (1999)†
116-F-9	116-F-9, Animal Waste Leaching Trench	Trench	Amendment to the Interim Remedial Action Record of Decision, 100-BC-1, 100-DR-1, 100-HR-1 (1995) (1997)

Appendix C

Listing by Operable Unit. (Sheet 16 of 85)

OPERABLE UNIT Waste Unit Name	LEAD REGULATORY AGENCY Waste Unit Aliases	Unit Type	Status
100-FR-1 **(continued)**			
116-F-10	116-F-10, 105-F Dummy Decontamination French Drain, 116-F-8, 105 Dummy/Perf Decontamination Crib, Perf Decontamination Drain	French Drain	Amendment to the Interim Remedial Action Record of Decision, 100-BC-1, 100-DR-1, 100-HR-1 (1995) (1997)
116-F-11	116-F-11, 105-F Cushion Corridor French Drain	French Drain	Amendment to the Interim Remedial Action Record of Decision, 100-BC-1, 100-DR-1, 100-HR-1 (1995) (1997)
116-F-12	116-F-12, 148-F French Drain	French Drain	Interim Record of Decision, 100 Area Remaining Sites (1999)†
116-F-14	116-F-14, 107-F Retention Basin, 107-F	Retention Basin	Amendment to the Interim Remedial Action Record of Decision, 100-BC-1, 100-DR-1, 100-HR-1 (1995) (1997)
116-F-15	116-F-15, 108-F Radiation Crib	Sump	Interim Record of Decision, 100 Area Remaining Sites (1999)†
116-F-16	116-F-16, PNL Outfall	Outfall	Interim Record of Decision, 100 Area Remaining Sites (1999)†
126-F-2*	126-F-2, 183-F Clearwells	Dumping Area	Interim Record of Decision, 100 Area Remaining Sites (1999)†
128-F-2	128-F-2, 100-F Burning Pit	Burn Pit	Interim Record of Decision, 100 Area Remaining Sites (1999)†
132-F-1	132-F-1, 132-F-1 Chronic Feeding Barn, 141-F, 141-F Sheep Barn	Laboratory	Interim Record of Decision, 100 Area Remaining Sites (1999)†
132-F-3	132-F-3, 115-F Gas Recirculating Facility	Burial Ground	Interim Record of Decision, 100 Area Remaining Sites (1999)†
132-F-4	132-F-4, 116-F Reactor Stack, 116-F Reactor Exhaust Stack, 132-F-4 Reactor Stack Demolition Site	Burial Ground	Interim Record of Decision, 100 Area Remaining Sites (1999)†
132-F-5	132-F-5, 117-F Filter Building	Burial Ground	Interim Record of Decision, 100 Area Remaining Sites (1999)†
132-F-6	132-F-6, 1608-F Waste Water Pumping Station, 1608-F Effluent Pumping Station, 132-F-6 Lift Station	Pump Station	Interim Record of Decision, 100 Area Remaining Sites (1999)†

Appendix C

Listing by Operable Unit. (Sheet 17 of 85)

OPERABLE UNIT Waste Unit Name	LEAD REGULATORY AGENCY Waste Unit Aliases	Unit Type	Status
100-FR-1 (continued)			
182-F	182-F, 182-F Reservoir	Dumping Area	Interim Record of Decision, 100 Area Remaining Sites (1999)†
1607-F2	1607-F2, 1607-F2 Septic Tank, 124-F-2, 1607-F2 Sanitary Sewer System	Septic Tank	Interim Record of Decision, 100 Area Remaining Sites (1999)†
1607-F3	1607-F3, 1607-F3 Septic Tank, 124-F-3, 1607-F3 Sanitary Sewer System	Septic Tank	Interim Record of Decision, 100 Area Remaining Sites (1999)†
1607-F4	1607-F4, 1607-F4 Septic Tank, 124-F-4, 1607-F4 Sanitary Sewer System	Septic Tank	Interim Record of Decision, 100 Area Remaining Sites (1999)†
1607-F5	1607-F5, 1607-F5 Septic Tank, 124-F-5, 1607-F5 Sanitary Sewer System	Septic Tank	Interim Record of Decision, 100 Area Remaining Sites (1999)†
1607-F6	1607-F6, 1607-F6 Septic Tank, 124-F-6, 1607-F6 Sanitary Sewer System	Drain/Tile Field	Interim Record of Decision, 100 Area Remaining Sites (1999)†
1607-F7	1607-F7, 141-M Building Septic Tank, 124-F-7	Septic Tank	Interim Record of Decision, 100 Area Remaining Sites (1999)†
UPR-100-F-1	UPR-100-F-1, 141 Building Sewer Line Spill, UN-100-F-1, 141-C to 141-M Sewer Line Leak	Unplanned Release	Interim Record of Decision, 100 Area Remaining Sites (1999)†
UPR-100-F-2	UPR-100-F-2, Basin Leak Ditch, 107-F Basin Leak Ditch, 100-F-3	Unplanned Release	Amendment to the Interim Remedial Action Record of Decision, 100-BC-1, 100-DR-1, 100-HR-1 (1995) (1997)
UPR-100-F-3	UPR-100-F-3, Mercury Spill	Unplanned Release	Interim Record of Decision, 100 Area Remaining Sites (1999)†
100-FR-2	**EPA**	**CPP**	
100-F-2	100-F-2, Strontium Garden, PNL Ecological Study Strontium Garden	Laboratory	Interim Record of Decision, 100 Area Remaining Sites (1999)†
100-F-14	100-F-14, 100-FR-2 Vent Pipe, 100-F Carpenter Shop Waste Site Vent	Storage Tank	Interim Record of Decision, 100 Area Remaining Sites (1999)†
100-F-15	100-F-15, 108-F Building Ventilation French Drain, Undocumented	French Drain	Amendment to the Interim Remedial Action Record of Decision, 100-BC-1, 100-DR-1, 100-HR-1 (1995) (1997)
100-F-20	100-F-20, PNL Parallel Pits	Trench	
100-F-28	100-F-28, Septic Tank and Drainfield	Septic Tank	Interim Record of Decision, 100 Area Remaining Sites (1999)†

Appendix C

Listing by Operable Unit. (Sheet 18 of 85)

OPERABLE UNIT Waste Unit Name	LEAD REGULATORY AGENCY Waste Unit Aliases	Unit Type	Status
100-FR-2 **(continued)**			
118-F-1	118-F-1, Minor Construction Burial Ground No. 2, Burial Ground No. 1, Solid Waste Burial Ground No. 2	Burial Ground	
118-F-2	118-F-2, Burial Ground No. 2, Solid Waste Burial Ground No. 1	Burial Ground	
118-F-3	118-F-3, Minor Construction Burial Ground No. 1, Burial Ground No. 3	Burial Ground	
118-F-4	118-F-4, 115-F Pit, 115-F Crib	Crib	Interim Record of Decision, 100 Area Remaining Sites (1999)†
118-F-5	118-F-5, PNL Sawdust Pit, PNL Sawdust Respository, Battelle Sawdust Pit	Burial Ground	
118-F-6	118-F-6, PNL Solid Waste Burial Ground	Burial Ground	
118-F-7	118-F-7, 100-F Miscellaneous Hardware Storage Vault, Concrete Box	Storage	
118-F-9	118-F-9, PNL Rad Site	Burial Ground	
120-F-1	120-F-1, Glass Dump	Trench	Interim Record of Decision, 100 Area Remaining Sites (1999)†
126-F-1	126-F-1, 184-F Powerhouse Ash Pit, 188-F Ash Disposal Area	Coal Ash Pit	Amendment to the Interim Remedial Action Record of Decision, 100-BC-1, 100-DR-1, 100-HR-1 (1995) (1997)
128-F-1	128-F-1, 100-F Burning Pit, 100-F Burning Pit No. 1	Burn Pit	Interim Record of Decision, 100 Area Remaining Sites (1999)†
128-F-3	128-F-3, PNL Burn Pit	Burn Pit	Interim Record of Decision, 100 Area Remaining Sites (1999)†
1607-F1	1607-F1, 1607-F1 Septic Tank and Associated Drain Field, 124-F-1, 1607-F1 Sanitary Sewer System, 1607-F1 Septic Tank	Septic Tank	Interim Record of Decision, 100 Area Remaining Sites (1999)†
100-HR-1	**Ecology**	**CPP**	
100-H-3	100-H-3, 1716-H Garage Fuel Tank Site	Storage Tank	Interim Record of Decision, 100 Area Remaining Sites (1999)†

Appendix C

Listing by Operable Unit. (Sheet 19 of 85)

OPERABLE UNIT Waste Unit Name	LEAD REGULATORY AGENCY Waste Unit Aliases	Unit Type	Status
100-HR-1 **(continued)**			
100-H-4	100-H-4, 1717-H Hot Shop, French Drain, and, Contaminated Storage Unit	Maintenance Shop	Interim Record of Decision, 100 Area Remaining Sites (1999)†
100-H-5	100-H-5, 107-H Retention Basin Sludge Burial Site, 107-H Buried Sludge Site, 107-H Grave	Burial Ground	Amendment to the Interim Remedial Action Record of Decision, 100-BC-1, 100-DR-1, 100-HR-1 (1995) (1997)
100-H-7	100-H-7, French Drain A	French Drain	Interim Record of Decision, 100 Area Remaining Sites (1999)†
100-H-8	100-H-8, French Drain B	French Drain	Interim Record of Decision, 100 Area Remaining Sites (1999)†
100-H-9	100-H-9, French Drain C	French Drain	Interim Record of Decision, 100 Area Remaining Sites (1999)†
100-H-10	100-H-10, French Drain D	French Drain	Interim Record of Decision, 100 Area Remaining Sites (1999)†
100-H-11	100-H-11, Expansion Box French Drain E	French Drain	Interim Record of Decision, 100 Area Remaining Sites (1999)†
100-H-12	100-H-12, Expansion Box French Drain F and Shielding Lead	French Drain	Interim Record of Decision, 100 Area Remaining Sites (1999)†
100-H-13	100-H-13, French Drain G	French Drain	Interim Record of Decision, 100 Area Remaining Sites (1999)†
100-H-14	100-H-14, Surface Contamination Zone H	Unplanned Release	Interim Record of Decision, 100 Area Remaining Sites (1999)†
100-H-17	100-H-17, 116-H-2 Trench Overflow	Unplanned Release	Amendment to the Interim Remedial Action Record of Decision, 100-BC-1, 100-DR-1, 100-HR-1 (1995) (1997)
100-H-21	100-H-21, 100-H Reactor Cooling Water Effluent Underground Pipelines	Radioactive Process Sewer	Interim Remedial Action Record of Decision, 100-BC-1, 100-DR-1, 100-HR-1 (1995)
100-H-22	100-H-22, Soil Contaminated by Effluent Line Leakage	Unplanned Release	Interim Record of Decision, 100 Area Remaining Sites (1999)†
100-H-24	100-H-24, 151-H Electrical Facilities, 151-H Substation	Electrical Substation	Interim Record of Decision, 100 Area Remaining Sites (1999)†
100-H-31	100-H-31, Polychlorinated Biphenyl in Soil On North Side of 105-H Reactor Building	Unplanned Release	Interim Record of Decision, 100 Area Remaining Sites (1999)†

Appendix C

Listing by Operable Unit. (Sheet 20 of 85)

OPERABLE UNIT Waste Unit Name	LEAD REGULATORY AGENCY Waste Unit Aliases	Unit Type	Status
100-HR-1 (continued)			
116-H-1	116-H-1, 107-H Liquid Waste Disposal Trench	Trench	Interim Remedial Action Record of Decision, 100-BC-1, 100-DR-1, 100-HR-1 (1995)
116-H-2	116-H-2, 1608-H Liquid Waste Disposal Trench, 1608-H Crib & Trench	Trench	Interim Remedial Action Record of Decision, 100-BC-1, 100-DR-1, 100-HR-1 (1995)
116-H-3	116-H-3, 105-H Dummy Decontamination French Drain, Perf Decontamination Drain	French Drain	Amendment to the Interim Remedial Action Record of Decision, 100-BC-1, 100-DR-1, 100-HR-1 (1995) (1997)
116-H-4	116-H-4, 105-H Pluto Crib	Crib	Interim Remedial Action Record of Decision, 100-BC-1, 100-DR-1, 100-HR-1 (1995)
116-H-5	116-H-5, 116-H-5 Outfall Structure, 1904-H Outfall Structure, 116-H-5 Outfall Structure and Riverlines	Outfall	Interim Record of Decision, 100 Area Remaining Sites (1999)†
116-H-7	116-H-7, 107-H Retention Basin, 107-H	Retention Basin	Interim Remedial Action Record of Decision, 100-BC-1, 100-DR-1, 100-HR-1 (1995)
116-H-9	116-H-9, 117-H Crib, 117-H Seal Pit Crib	Crib	Interim Record of Decision, 100 Area Remaining Sites (1999)†
126-H-2*	126-H-2, 183-H Clearwells/Disposal Pit	Dumping Area	Interim Record of Decision, 100 Area Remaining Sites (1999)†
132-H-1	132-H-1, 116-H Reactor Exhaust Stack Burial Site	Burial Ground	Interim Record of Decision, 100 Area Remaining Sites (1999)†
132-H-3	132-H-3, 1608-H Waste Water Pumping Station Site, 116-H-8, 1608-H Effluent Pumping Station Site	Pump Station	Interim Record of Decision, 100 Area Remaining Sites (1999)†
1607-H2	1607-H2, 1607-H2 Septic Tank and Associated Drain Field, 1607-H2 Sanitary Sewer System, 124-H-2, 1607-H2 Septic Tank	Septic Tank	Interim Record of Decision, 100 Area Remaining Sites (1999)†
1607-H4	1607-H4, 1607-H4 Septic Tank and Associated Drain Field, 1607-H4 Sanitary Sewer System, 124-H-4, 1607-H4 Septic Tank	Septic Tank	Interim Record of Decision, 100 Area Remaining Sites (1999)†

Appendix C

OPERABLE UNIT Waste Unit Name	LEAD REGULATORY AGENCY Waste Unit Aliases	Unit Type	Status
100-HR-2	**Ecology**	**RPP**	
100-H-2	100-H-2, Buried Thimble Site	Burial Ground	Interim Remedial Action Record of Decision, 100-BC-1, 100-DR-1, 100-HR-1 (1995); Proximity Site to 116-H-2
118-H-1	118-H-1, 100-H Burial Ground No. 1, 100-H-1	Burial Ground	
118-H-2	118-H-2, H-1 Loop Burial Ground, 100-H Burial Ground No. 2	Burial Ground	
118-H-3	118-H-3, Construction Burial Ground	Burial Ground	
118-H-4	118-H-4, Ball 3X Burial Ground	Burial Ground	
118-H-5	118-H-5, 105-H Thimble Pit	Burial Ground	
128-H-1	128-H-1, 100-H Burning Pit, 100-H Burning Pit No. 1	Burn Pit	Interim Record of Decision, 100 Area Remaining Sites (1999)†
128-H-2	128-H-2, 100-H Burning Ground #2	Burn Pit	Interim Record of Decision, 100 Area Remaining Sites (1999)†
128-H-3	128-H-3, 100-H Burning Ground #3	Burn Pit	Interim Record of Decision, 100 Area Remaining Sites (1999)†
132-H-2	132-H-2, 117-H Filter Building Site	Burial Ground	Interim Record of Decision, 100 Area Remaining Sites (1999)†
1607-H1*	1607-H1, 1607-H1 Septic Tank and Associated Drain Field, 124-H-1, 1607-H1 Sanitary Sewer System, 1607-H1 Septic Tank	Septic Tank	Interim Record of Decision, 100 Area Remaining Sites (1999)†
600-151	600-151, Dumping Areas 50 yards and 200 yards Downstream of River Mile 14, Military installation NW of 100H Area	Dumping Area	Interim Record of Decision, 100 Area Remaining Sites (1999)†
100-IU-1	**EPA**	**CPP**	
600-41	600-41, H 70 Anti-Aircraft Artillery (AAA) Site	Military Compound	Deleted From NPL (7/8/1998)
600-42	600-42, H 71 Anti-Aircraft Artillery (AAA) Site	Military Compound	Deleted From NPL (7/8/1998)
600-43	600-43, McGee Fish Farm	Dumping Area	Deleted From NPL (7/8/1998)

Appendix C

Listing by Operable Unit. (Sheet 22 of 85)

OPERABLE UNIT Waste Unit Name	LEAD REGULATORY AGENCY Waste Unit Aliases	Unit Type	Status
100-IU-1 **(continued)**			
600-44	600-44, Herbicide/Pesticide Empty Container Pile, Enyert Well Empty Pesticide Container Dump, 600-68	Dumping Area	Deleted From NPL (7/8/1998)
600-45	600-45, Transite and Metal Debris Pile	Dumping Area	Deleted From NPL (7/8/1998)
600-101	600-101, RRCWP, Riverland Railroad Car Wash Pit	Depression/Pit (nonspecific)	Deleted From NPL (7/8/1998)
600-102	600-102, 600 AMBS, 600 Area Army Munitions Burial Site	Burial Ground	Deleted From NPL (7/8/1998)
100-IU-2	**EPA**	**CPP**	
600-5	600-5, White Bluffs Waste Oil Dump, Asphalt Heliport	Dumping Area	Interim Record of Decision, 100 Area Remaining Sites (1999)†
600-52	600-52, White Bluffs Surface Basin	Drain/Tile Field	Interim Record of Decision, 100 Area Remaining Sites (1999)†
600-98	600-98, East White Bluffs City Landfills, East White Bluffs Dump and East White Bluffs Dump #2, East White Bluffs Landfill, EWBCL	Sanitary Landfill	Interim Record of Decision, 100 Area Remaining Sites (1999)†
600-99	600-99, JA Jones 2, J. A. Jones #2, JA JONES2	Burial Ground	Interim Record of Decision, 100 Area Remaining Sites (1999)†
600-100	600-100, White Bluffs Landfill, White Bluffs City Landfill, WBL, White Bluffs City Dump, 600-119	Sanitary Landfill	Interim Record of Decision, 100 Area Remaining Sites (1999)†
600-120	600-120, White Bluffs Spare Parts Burn Pit, Spare Parts Burn Pit	Burn Pit	Interim Record of Decision, 100 Area Remaining Sites (1999)†
600-124	600-124, White Bluffs Burn Site and Paint Disposal Area, Burn Site and Paint Disposal Area	Burn Pit	Interim Record of Decision, 100 Area Remaining Sites (1999)†
600-125	600-125, White Bluffs Waste Disposal Trench 1, Waste Disposal Trenches	Trench	Interim Record of Decision, 100 Area Remaining Sites (1999)†
600-127	600-127, White Bluffs Loading Docks and Fuel Storage Area, Fuel Storage Area	Storage	Interim Record of Decision, 100 Area Remaining Sites (1999)†

Appendix C

Listing by Operable Unit. (Sheet 23 of 85)

OPERABLE UNIT Waste Unit Name	LEAD REGULATORY AGENCY Waste Unit Aliases	Unit Type	Status
100-IU-2 **(continued)**			
600-128	600-128, White Bluffs Oil and Oil Filter Dump Site, Oil and Oil Filter Dump Site	Dumping Area	Interim Record of Decision, 100 Area Remaining Sites (1999)†
600-129	600-129, White Bluffs Pre-MED Community Dump Site 1, Pre-MED White Bluffs Community Dump Site (Oil Can Site)	Dumping Area	Interim Record of Decision, 100 Area Remaining Sites (1999)†
600-131	600-131, White Bluffs Water Station and Special Fabrication Shops and Warehouse, Special Fabrication Shop and Warehouse	Dumping Area	Interim Record of Decision, 100 Area Remaining Sites (1999)†
600-132	600-132, White Bluffs Construction Contractor Shop Landfill, Construction Contracter Shop Landfill	Depression/Pit (nonspecific)	Interim Record of Decision, 100 Area Remaining Sites (1999)†
600-139	600-139, White Bluffs Automotive Repair Shop and Associated Waste Sites, Automotive Repair Shop	Dumping Area	Interim Record of Decision, 100 Area Remaining Sites (1999)†
600-176	600-176, White Bluffs Paint Disposal Area	Dumping Area	Interim Record of Decision, 100 Area Remaining Sites (1999)†
600-181	600-181, White Bluffs Oil Dump	Dumping Area	Interim Record of Decision, 100 Area Remaining Sites (1999)†
600-188	600-188, White Bluffs Waste Disposal Trench 2	Trench	Interim Record of Decision, 100 Area Remaining Sites (1999)†
600-190	600-190, White Bluffs Warehouse Tar and/or Paint Disposal Area	Dumping Area	Interim Record of Decision, 100 Area Remaining Sites (1999)†
600-201	600-201, White Bluffs Paint and Solid Waste Disposal Site	Dumping Area	Interim Record of Decision, 100 Area Remaining Sites (1999)†
628-1	628-1, White Bluffs Burn Pit	Burn Pit	Interim Record of Decision, 100 Area Remaining Sites (1999)†
100-IU-3	**Ecology**	**CPP**	
600-6	600-6, MIL - H-12-L, "Battery B" Nike Missile Launch Site	Military Compound	Deleted From NPL (7/8/1998)
600-7	600-7, Nike Asbestos Pipe Site, Concrete/Asbestos Pipe Site	Dumping Area	Deleted From NPL (7/8/1998)

Appendix C

Listing by Operable Unit. (Sheet 24 of 85)

OPERABLE UNIT Waste Unit Name	LEAD REGULATORY AGENCY Waste Unit Aliases	Unit Type	Status
100-IU-3 **(continued)**			
600-8	600-8, MIL - H-06C, Control Center for "Battery A" Nike Missile, Wahluke Slope Nike Missile Base, WSNMB, 600-103 (Part)	Military Compound	Deleted From NPL (7/8/1998)
600-9	600-9, MIL - H-06L, Battery "A" Nike Missile Installation Launch Site, Wahluke Slope Nike Missile Base, WSNMB, 600-103 (Part)	Military Compound	Deleted From NPL (7/8/1998)
600-10	600-10, MIL - H-12C, "Battery B" Nike Missile Control Center	Military Compound	Deleted From NPL (7/8/1998)
600-11	600-11, MIL - H-81R	Military Compound	Deleted From NPL (7/8/1998)
600-12	600-12, MIL - H-83C, Battery "C" Control Center	Military Compound	Deleted From NPL (7/8/1998)
600-13	600-13, MIL - H-83L, Battery "C" Launch Site	Military Compound	Deleted From NPL (7/8/1998)
600-14	600-14, MIL - PSN 01	Military Compound	Deleted From NPL (7/8/1998)
600-15	600-15, MIL - PSN 04	Military Compound	Deleted From NPL (7/8/1998)
600-16	600-16, MIL - PSN 07/10, PSN 10, H-07-H, Base Camp 500	Military Compound	Deleted From NPL (7/8/1998)
600-17	600-17, MIL - PSN 12/14 Site and Military Dump, Tent Camp 505, PSN 12, H-14	Military Compound	Deleted From NPL (7/8/1998)
600-18	600-18, MIL - PSN 72/82, PSN 72, H-82, Tent Camp 515	Military Compound	Deleted From NPL (7/8/1998)
600-19	600-19, MIL - PSN 90, H-90, Base Camp 410	Military Compound	Deleted From NPL (7/8/1998)
600-72	600-72, Wahluke Slope H-12-R Debris Site, H-12R	Dumping Area	Deleted From NPL (7/8/1998)
600-73	600-73, Wahluke Slope Igloo Sites	Military Compound	Deleted From NPL (7/8/1998)
600-74	600-74, Wahluke Slope PSN 12/14 Military Construction Dump, Motor Pool Dump	Military Compound	Deleted From NPL (7/8/1998)
600-75	600-75, Wahluke Slope PSN 80 Debris Site	Dumping Area	Deleted From NPL (7/8/1998)
600-76	600-76, Wahluke Slope "Radar" Site, Underground Rooms	Military Compound	Deleted From NPL (7/8/1998)

Appendix C

OPERABLE UNIT Waste Unit Name	LEAD REGULATORY AGENCY Waste Unit Aliases	Unit Type	Status
100-IU-3 **(continued)**			
600-77	600-77, Wahluke Slope Shrapnel Sites, Antiaircraft Gun Shrapnel Sites 1, 2, 3	Military Compound	Deleted From NPL (7/8/1998)
600-78	600-78, Power Pole 12-3 Cistern, 12-3 Cistern	Catch Tank	Deleted From NPL (7/8/1998)
600-79	600-79, Wahluke Slope Clay Pit Cistern	Catch Tank	Deleted From NPL (7/8/1998)
600-80	600-80, Wahluke Slope Cow Camp Cistern	Catch Tank	Deleted From NPL (7/8/1998)
600-81	600-81, Wahluke Slope Homestead Cistern	Settling Tank	Deleted From NPL (7/8/1998)
600-82	600-82, Wahluke Slope Overlook Cistern	Catch Tank	Deleted From NPL (7/8/1998)
600-83	600-83, Wahluke Slope Stock Tank Cistern	Catch Tank	Deleted From NPL (7/8/1998)
600-84	600-84, Wahluke Slope Wagon Road Cistern	Catch Tank	Deleted From NPL (7/8/1998)
600-85	600-85, Wahluke Slope Stove Cistern	Catch Tank	Deleted From NPL (7/8/1998)
600-86	600-86, Wahluke Slope Wasteway Cistern	Catch Tank	Deleted From NPL (7/8/1998)
600-87	600-87, Wahluke Slope Dune Homestead	Dumping Area	Deleted From NPL (7/8/1998)
600-88	600-88, Wahluke Slope Lonetree Homestead	Dumping Area	Deleted From NPL (7/8/1998)
600-89	600-89, Wahluke Slope Asphalt Batch Plant	Dumping Area	Deleted From NPL (7/8/1998)
600-90	600-90, Wahluke Slope Coyote Bait Can/Bait Station	Dumping Area	Deleted From NPL (7/8/1998)
600-91	600-91, Wahluke Slope Gravel Pit #47	Depression/Pit (nonspecific)	Deleted From NPL (7/8/1998)
600-92	600-92, Wahluke Slope Gravel Pit #56, Borrow Pit #56	Depression/Pit (nonspecific)	Deleted From NPL (7/8/1998)
600-93	600-93, Hanford Firing Range	Dumping Area	Deleted From NPL (7/8/1998)
600-94	600-94, Wahluke Schoolhouse	Foundation	Deleted From NPL (7/8/1998)
600-95	600-95, Wahluke Slope Bridge Disposal Area, Bridge Overlook Site	Dumping Area	Deleted From NPL (7/8/1998)

Appendix C

Listing by Operable Unit. (Sheet 26 of 85)

OPERABLE UNIT Waste Unit Name	LEAD REGULATORY AGENCY Waste Unit Aliases	Unit Type	Status
100-IU-3 **(continued)**			
600-104	600-104, USBR, USBR 2,4-D Burial Site, USBR-2.4-D	Burial Ground	Deleted From NPL (7/8/1998)
100-IU-4	**Ecology**	**CPP**	
600-105	600-105, SDBDL, Sodium Dichromate Barrel Disposal Landfill	Burial Ground	Closed Out (2/12/1996)
100-IU-5	**EPA**	**CPP**	
600-106	600-106, WBPAC, White Bluffs Pickling Acid Cribs, White Bluff Pickling Acid Cribs	Crib	Closed Out (2/12/1996)
100-IU-6	**EPA**	**CPP**	
600-3	600-3, Hanford Townsite Excess Material Storage Yard/Paint Pit	Dumping Area	Interim Record of Decision, 100 Area Remaining Sites (1999)†
600-23	600-23, Dumping Area Within Gravel Pit #11	Dumping Area	Interim Record of Decision, 100 Area Remaining Sites (1999)†; Added through "Plug-In Approach"
600-107	600-107, 213-J&K Cribs, Gable Mountain Plutonium Storage Vault Cribs, 213-J & K Cribs	Crib	Interim Record of Decision, 100 Area Remaining Sites (1999)†
600-108*	600-108, 213-J&K Vaults, 213-J&K Storage Facility (SF), 213-J & K Magazine Waste Storage Cavern, 213-J & K Storage Facility	Storage	Interim Record of Decision, 100 Area Remaining Sites (1999)†
600-109	600-109, HTCL, Hanford Trailer Camp Landfill	Sanitary Landfill	Interim Record of Decision, 100 Area Remaining Sites (1999)†
600-110	600-110, HTL, Hanford Townsite Landfill	Sanitary Landfill	Interim Record of Decision, 100 Area Remaining Sites (1999)†
600-111	600-111, P-11 Critical Mass Laboratory Crib, 116-F-6	Crib	Interim Record of Decision, 100 Area Remaining Sites (1999)†
600-149	600-149, Small Arms Range, Rifle and Pistol Range, 661 Complex, 600-54	Military Compound	Interim Record of Decision, 100 Area Remaining Sites (1999)†
600-202	600-202, Hanford Townsite Four Burn and Burial Pits	Burn Pit	Interim Record of Decision, 100 Area Remaining Sites (1999)†

Appendix C

Listing by Operable Unit. (Sheet 27 of 85)

OPERABLE UNIT Waste Unit Name	LEAD REGULATORY AGENCY Waste Unit Aliases	Unit Type	Status
100-IU-6 **(continued)**			
600-204	600-204, Hanford Townsite Burn and Burial Trench	Burn Pit	Interim Record of Decision, 100 Area Remaining Sites (1999)†
600-205	600-205, Hanford Townsite Landfill 2	Dumping Area	Interim Record of Decision, 100 Area Remaining Sites (1999)†
600-208	600-208, Hanford Construction Camp Boiler House Ponds	Pond	Interim Record of Decision, 100 Area Remaining Sites (1999)†
JA JONES 1	JA JONES 1, JA Jones 1, JA Jones Dumping Pit #1, JA Jones Construction Pit #1	Dumping Area	Interim Record of Decision, 100 Area Remaining Sites (1999)†; Added through "Plug-In Approach"
UPR-600-11	UPR-600-11, Contaminated Soil Dumped at JA Jones Pit #1	Unplanned Release	Closed Out (1/27/1999)
UPR-600-16	UPR-600-16, P-11 Fire and Contamination Spread, UN-600-16, UN-616-16	Unplanned Release	Interim Record of Decision, 100 Area Remaining Sites (1999)†
100-KR-1	**EPA**	**CPP**	
116-K-1	116-K-1, 100-K Crib, 100-K Pond, 116-K-1 Trench, 107-K Pond, 107-K(E) Sump, 100-K Emergency Pond	Crib	Amendment to the Interim Remedial Action Record of Decision, 100-BC-1, 100-DR-1, 100-HR-1 (1995) (1997)
116-K-2	116-K-2, 100-K Mile Long Trench, K Trench, 116-K-2 Trench, 100-K Emergency Trench, 107-K Effluent Trench, Bypass Crib Ditch	Trench	Amendment to the Interim Remedial Action Record of Decision, 100-BC-1, 100-DR-1, 100-HR-1 (1995) (1997)
116-K-3*	116-K-3, 1904-K Outfall Structure, 1908-K Outfall Structure	Outfall	Interim Record of Decision, 100 Area Remaining Sites (1999)†
116-KE-4	116-KE-4, 107-KE Retention Basins, 107-KE	Retention Basin	Amendment to the Interim Remedial Action Record of Decision, 100-BC-1, 100-DR-1, 100-HR-1 (1995) (1997)
116-KW-3	116-KW-3, 107-KW Retention Basin, 107-KW	Retention Basin	Amendment to the Interim Remedial Action Record of Decision, 100-BC-1, 100-DR-1, 100-HR-1 (1995) (1997)
100-KR-2	**EPA**	**CPP**	
100-K-1	100-K-1, 119-KW French Drain, 119-KW Exhaust Air Sample Building French Drain, 100-K-45	French Drain	Amendment to the Interim Remedial Action Record of Decision, 100-BC-1, 100-DR-1, 100-HR-1 (1995) (1997)
100-K-2	100-K-2, 118-K-2, 118-K-2 Sludge Burial Ground, Burial Area	Burial Ground	

Appendix C

Listing by Operable Unit. (Sheet 28 of 85)

OPERABLE UNIT Waste Unit Name	LEAD REGULATORY AGENCY Waste Unit Aliases	Unit Type	Status
100-KR-2 **(continued)**			
100-K-13	100-K-13, French Drain West of the 166-KW Oil Storage Tank Facility	French Drain	Interim Record of Decision, 100 Area Remaining Sites (1999)†
100-K-14	100-K-14, 183-KE Acid Neutralization Pit and Overflow French Drain	French Drain	Interim Record of Decision, 100 Area Remaining Sites (1999)†
100-K-18	100-K-18, 183-KW Caustic Neutralization Pit	Sump	Interim Record of Decision, 100 Area Remaining Sites (1999)†
100-K-29	100-K-29, 183-KE Sandblasting Site	Dumping Area	Interim Record of Decision, 100 Area Remaining Sites (1999)†
100-K-30	100-K-30, 183-KE Sulfuric Acid Tank (West Tank)	Storage Tank	Interim Record of Decision, 100 Area Remaining Sites (1999)†
100-K-31	100-K-31, 183-KE Sulfuric Acid Tank (East tank)	Storage Tank	Interim Record of Decision, 100 Area Remaining Sites (1999)†
100-K-32	100-K-32, 183-KW Sulfuric Acid Tank (East tank)	Storage Tank	Interim Record of Decision, 100 Area Remaining Sites (1999)†
100-K-33	100-K-33, 183-KW Sulfuric Acid Tank (West tank)	Storage Tank	Interim Record of Decision, 100 Area Remaining Sites (1999)†
100-K-34	100-K-34, 183-KW Acid Neutralization Pit	Sump	Interim Record of Decision, 100 Area Remaining Sites (1999)†
100-K-35	100-K-35, 183-KE Acid Neutralization Pit	Sump	Interim Record of Decision, 100 Area Remaining Sites (1999)†
100-K-36	100-K-36, 1706-KE Chemical Storage Facility Dry Well	French Drain	Interim Record of Decision, 100 Area Remaining Sites (1999)†
100-K-42*	100-K-42, 100 Area KE Basin, 105-KE Fuel Storage Basin, K East Basin, Irradiated Fissile Material Storage, Metal Storage Basin, 100-K-40	Storage	Interim Record of Decision, 100 Area Remaining Sites (1999)†
100-K-43*	100-K-43, KW Basin, 105-KW Fuel Storage Basin, K West Basin, Irradiated Fissile Material Storage	Storage	Interim Record of Decision, 100 Area Remaining Sites (1999)†
100-K-46	100-K-46, 119-KE French Drain, Drywell	French Drain	Interim Record of Decision, 100 Area Remaining Sites (1999)†

Appendix C

Listing by Operable Unit. (Sheet 29 of 85)

OPERABLE UNIT Waste Unit Name	LEAD REGULATORY AGENCY Waste Unit Aliases	Unit Type	Status
100-KR-2 **(continued)**			
100-K-48	100-K-48, 100-KE Oil Contamination Areas	Unplanned Release	Interim Record of Decision, 100 Area Remaining Sites (1999)†
100-K-49	100-K-49, 100-KW Oil Contamination Area	Unplanned Release	Interim Record of Decision, 100 Area Remaining Sites (1999)†
100-K-53	100-K-53, 100-KE Glycol Heat Recovery Underground Pipelines	Product Piping	Interim Record of Decision, 100 Area Remaining Sites (1999)†
100-K-54	100-K-54, 100-KW Glycol Heat Recovery Underground Pipelines	Product Piping	Interim Record of Decision, 100 Area Remaining Sites (1999)†
100-K-55	100-K-55, 100-KW Reactor Cooling Water Effluent Underground Pipelines	Radioactive Process Sewer	Amendment to the Interim Remedial Action Record of Decision, 100-BC-1, 100-DR-1, 100-HR-1 (1995) (1997)
100-K-56	100-K-56, 100-KE Reactor Cooling Water Effluent Underground Pipelines	Radioactive Process Sewer	Amendment to the Interim Remedial Action Record of Decision, 100-BC-1, 100-DR-1, 100-HR-1 (1995) (1997)
118-K-1	118-K-1, 100-K Burial Ground, 118-K	Burial Ground	
128-K-1	128-K-1, 100-K Burning Pit	Burn Pit	Interim Record of Decision, 100 Area Remaining Sites (1999)†
128-K-2	128-K-2, 100-K Construction Dump	Burn Pit	Interim Record of Decision, 100 Area Remaining Sites (1999)†
130-K-2	130-K-2, 1717-K Waste Oil Storage Tank	Storage Tank	Interim Record of Decision, 100 Area Remaining Sites (1999)†
116-KE-1	116-KE-1, 115-KE Condensate Crib	Crib	Amendment to the Interim Remedial Action Record of Decision, 100-BC-1, 100-DR-1, 100-HR-1 (1995) (1997)
116-KE-2	116-KE-2, 1706-KER Waste Crib	Crib	Amendment to the Interim Remedial Action Record of Decision, 100-BC-1, 100-DR-1, 100-HR-1 (1995) (1997)
116-KE-3	116-KE-3, 105-KE Storage Basin French Drain, 105-KE Fuel Storage Basin Sub-Basin Drainage Disposal System Crib	Injection/Reverse Well	Amendment to the Interim Remedial Action Record of Decision, 100-BC-1, 100-DR-1, 100-HR-1 (1995) (1997)
120-KE-1	120-KE-1, 183-KE Filter Waste Facility Dry Well, 100-KE-1, 183-KE Filter Water Facility, 183-KE Acid Neutralization Pit, 100-K-26	Sump	Interim Record of Decision, 100 Area Remaining Sites (1999)†

Appendix C

Listing by Operable Unit. (Sheet 30 of 85)

OPERABLE UNIT Waste Unit Name	LEAD REGULATORY AGENCY Waste Unit Aliases	Unit Type	Status
100-KR-2 **(continued)**			
120-KE-2	120-KE-2, 183-KE Filter Waste Facility French Drain, 100-KE-2, 183 KE Filter Water Facility	French Drain	Interim Record of Decision, 100 Area Remaining Sites (1999)†
120-KE-3	120-KE-3, 100-KE-3, 183-KE Filter Water Facility Trench	Trench	Interim Record of Decision, 100 Area Remaining Sites (1999)†
120-KE-6	120-KE-6, 183-KE Sodium Dichromate Tank	Foundation	Interim Record of Decision, 100 Area Remaining Sites (1999)†
130-KE-1	130-KE-1, 105-KE Emergency Diesel Oil Storage Tank, 105-KE Emergency Diesel Fuel Tank	Storage Tank	Interim Record of Decision, 100 Area Remaining Sites (1999)†
116-KW-1	116-KW-1, 115-KW Condensate Crib	Crib	Interim Remedial Action Record of Decision, 100-BC-1, 100-DR-1, 100-HR-1 (1995)
116-KW-2	116-KW-2, 105-KW Storage Basin French Drain, 105-KW Basin Reverse Well, 105-KW Fuel Storage Basin Sub-Basin Drainage Disposal System Crib	Injection/Reverse Well	Amendment to the Interim Remedial Action Record of Decision, 100-BC-1, 100-DR-1, 100-HR-1 (1995) (1997)
120-KW-1	120-KW-1, 183-KW Filter Water Facility Dry Well, 100-KW-1, 183-KW Acid Neutralization Pit, 100-K-17	Sump	Interim Record of Decision, 100 Area Remaining Sites (1999)†
120-KW-2	120-KW-2, 183-KW Filter Water Facility French Drain, 100-KW-2	French Drain	Interim Record of Decision, 100 Area Remaining Sites (1999)†
120-KW-5	120-KW-5, 183-KW Sodium Dichromate Storage Tank	Foundation	Interim Record of Decision, 100 Area Remaining Sites (1999)†
130-KW-1	130-KW-1, 105-KW Emergency Diesel Oil Storage Tank, 105-KW Emergency Diesel Fuel Tank	Storage Tank	Interim Record of Decision, 100 Area Remaining Sites (1999)†
600-29	600-29, 100-K Construction Lay-down Area, 100-K-41	Dumping Area	Interim Record of Decision, 100 Area Remaining Sites (1999)†
UPR-100-K-1	UPR-100-K-1, 100-KE Fuel Storage Basin leak, UN-100-K-1	Unplanned Release	Interim Record of Decision, 100 Area Remaining Sites (1999)†

Appendix C

Listing by Operable Unit. (Sheet 31 of 85)

OPERABLE UNIT Waste Unit Name	LEAD REGULATORY AGENCY Waste Unit Aliases	Unit Type	Status
100-NR-1	**Ecology**	**RPP**	
100-N-1	100-N-1, HGP Settling Pond	Pond	
100-N-3*	100-N-3, Maintenance Garage French Drain, Maintenance Garage Waste Water Treatment Unit	French Drain	
100-N-4*	100-N-4, HGP Tile Field	Drain/Tile Field	
100-N-5	100-N-5, HGP Disposal and Storage Area, HGP Bone Yard	Storage	
100-N-41	100-N-41, 1701-NE Septic Tank	Septic Tank	
100-N-45	100-N-45, 1703-N Septic Tank	Septic Tank	
100-N-46	100-N-46, HGP Diesel Oil Storage Tank	Storage Tank	
116-N-1**	116-N-1, 1301-N Liquid Waste Disposal Facility, 1301-N Crib and Trench	Crib	
116-N-2	116-N-2, 1310-N Chemical Waste Storage Tank, The Golf Ball, 1310-N Waste Storage Area	Storage Tank	
116-N-3**	116-N-3, 1325-N Liquid Waste Disposal Facility, 1325-N Crib and Trench	Crib	
116-N-4	116-N-4, 1300-N Emergency Dump Basin	Retention Basin	
118-N-1	118-N-1, 100-N Area Silos, 100-N Area Spacer Silos, 118-N, 1303-N Spacer Silos, 1303-N Radioactive Dummy Burial Facility	Silo	
120-N-1**	120-N-1, 1324-NA Percolation Pond	Pond	
120-N-2**	120-N-2, 1324-N Surface Impoundment	Surface Impoundment	
120-N-3	120-N-3, 163-N Neutralization Pit and French Drain	French Drain	
120-N-5	120-N-5, 108-N/163-N Transfer Line And Neutralization Pit	Product Piping	
120-N-6	120-N-6, 108-N Acid Tank Vent French Drains	French Drain	

Appendix C

Listing by Operable Unit. (Sheet 32 of 85)

OPERABLE UNIT Waste Unit Name	LEAD REGULATORY AGENCY Waste Unit Aliases	Unit Type	Status
100-NR-1 **(continued)**			
120-N-7	120-N-7, 108-N Acid Unloading Facility French Drain	French Drain	
120-N-8	120-N-8, 163-N Sulfuric Acid Tank Vent French Drain	French Drain	
124-N-1*	124-N-1, 124-N-1 Septic Tank, 100-N Sanitary Sewer System No. 1	Septic Tank	
124-N-2	124-N-2, 124-N-2 Septic Tank, 100-N Sanitary Sewer System No. 2	Septic Tank	
124-N-3	124-N-3, 124-N-3 Septic Tank, 100-N Sanitary Sewer System No. 3	Septic Tank	
124-N-4	124-N-4, 100-N Sanitary Sewer System No. 4, 124-N-4 Septic Tank	Septic Tank	
124-N-5	124-N-5, 100-N Sanitary Sewer System No. 5, 124-N-5 Septic Tank	Septic Tank	
124-N-6	124-N-6, 100-N Sanitary Sewer System No. 6, 124-N-6 Septic Tank	Septic Tank	
124-N-7	124-N-7, 100-N Sanitary Sewer System No. 7, 124-N-7 Septic Tank	Septic Tank	
124-N-8	124-N-8, 100-N Sanitary Sewer System No. 8, 124-N-8 Septic Tank	Septic Tank	
124-N-9*	124-N-9, 124-N-9 Septic Tank, 100-N Sanitary Sewer System No. 9	Septic Tank	
124-N-10*	124-N-10, 124-N-10 Sanitary Sewer System, 100-N Central Sewer System No. 10, Project H-677	Sewage Lagoon	
128-N-1	128-N-1, 100-N Burning Pit, 128-N-1 Burning Pit	Burn Pit	
130-N-1*	130-N-1, 183-N Backwash Discharge Pond, 126-N-1, 183-N Filter Backwash Pond,	Pond	
1908-NE	1908-NE, HGP Outfall, 1908-NE Building	Outfall	

Appendix C

Listing by Operable Unit. (Sheet 33 of 85)

OPERABLE UNIT Waste Unit Name	LEAD REGULATORY AGENCY Waste Unit Aliases	Unit Type	Status
100-NR-1 **(continued)**			
600-32	600-32, N Area Landfill	Dumping Area	
UPR-100-N-1	UPR-100-N-1, 100-N 1304-N Dump Tank, UN-100-N-1, Emergency Dump Tank Inlet Valve Box Leak	Unplanned Release	
UPR-100-N-2	UPR-100-N-2, 100-N FLV-858 Valve Leak, UN-100-N-2	Unplanned Release	
UPR-100-N-3	UPR-100-N-3, Dummy Fuel Transfer Line, UN-100-N-3, Spacer Disposal System Transport Line Leak, UN-116-N-3	Unplanned Release	
UPR-100-N-4	UPR-100-N-4, 1322-A Sump Overflow, UN-100-N-4	Unplanned Release	
UPR-100-N-5	UPR-100-N-5, 1310-N Chemical Waste Storage Tank Leak, UN-100-N-5, 116-N-2 Radioactive Chemical Waste Treatment Storage Facility	Unplanned Release	
UPR-100-N-6	UPR-100-N-6, 1 1/2 Inch Chemical Decontam. Waste Drain Line Leaks, UN-100-N-6, UN-116-N-6, Chemical Decontamination Waste Drain Line Leak	Unplanned Release	
UPR-100-N-7	UPR-100-N-7, Ten-inch Radioactive Drain Return Line Leak, UN-116-N-7, UN-100-N-7	Unplanned Release	
UPR-100-N-8	UPR-100-N-8, 1322-A Sump Overflow, UN-100-N-8	Unplanned Release	
UPR-100-N-9	UPR-100-N-9, 119-N Cooling Water Drain Line Leak, UN-100-N-9	Unplanned Release	
UPR-100-N-10	UPR-100-N-10, 100-N Area 105-N Check Valve, UN-100-N-10, Lift Station Gravity Drain Line Leak	Unplanned Release	
UPR-100-N-11	UPR-100-N-11, Five Hundred Pound Valve Bonnet Contamination in Uncontrolled Area, 100-N Area Valve Bonnet, UN-100-N-11	Unplanned Release	

Appendix C

Listing by Operable Unit. (Sheet 34 of 85)

OPERABLE UNIT Waste Unit Name	LEAD REGULATORY AGENCY Waste Unit Aliases	Unit Type	Status
100-NR-1 **(continued)**			
UPR-100-N-12	UPR-100-N-12, Spacer Transport Line Leak, UN-100-N-12	Unplanned Release	
UPR-100-N-13	UPR-100-N-13, 1314-N Loading Station, 1314-N Drywell Overflow, UN-100-N-13	Unplanned Release	
UPR-100-N-14	UPR-100-N-14, 119-N Drain System Leak, UN-100-N-14	Unplanned Release	
UPR-100-N-15	UPR-100-N-15, 108-N Neutralization Sump Spill, UN-116-N-15, UN-100-N-15, Acid Spill at 108-N	Unplanned Release	
UPR-100-N-17	UPR-100-N-17, 166-N Diesel Oil Supply Line Leak, UN-100-N-17	Unplanned Release	
UPR-100-N-18	UPR-100-N-18, 166-N Four-inch Diesel Oil Supply Line to 184-N Leak, UN-100-N-18	Unplanned Release	
UPR-100-N-19	UPR-100-N-19, 184-N Day Tank Fuel Oil Spill, UN-116-N-19, UN-100-N-19	Unplanned Release	
UPR-100-N-20	UPR-100-N-20, 166-N Two-inch Diesel Oil Return Line Leak, UN-116-N-20, UN-100-N-20	Unplanned Release	
UPR-100-N-21	UPR-100-N-21, 184-N Diesel Oil Day Tank Overflow, UN-116-N-21, UN-100-N-21	Unplanned Release	
UPR-100-N-22	UPR-100-N-22, 184-N Diesel Oil Supply Line Leak No. 1, UN-100-N-22, UN-116-N-22	Unplanned Release	
UPR-100-N-23	UPR-100-N-23, 184-N Diesel Oil Supply Line Leak No. 2, UN-100-N-23, UN-116-N-23	Unplanned Release	
UPR-100-N-24	UPR-100-N-24, 166-N Fuel Oil Supply Line Leak, UN-116-N-24, UN-100-N-24	Unplanned Release	
UPR-100-N-25	UPR-100-N-25, Uncontrolled Venting of 1310-N Tank, UN-100-N-25	Unplanned Release	
UPR-100-N-26	UPR-100-N-26, Backflow of Radioactive Waste in 1314-N Facility, UN-100-N-26	Unplanned Release	

Appendix C

Listing by Operable Unit. (Sheet 35 of 85)

OPERABLE UNIT Waste Unit Name	LEAD REGULATORY AGENCY Waste Unit Aliases	Unit Type	Status
100-NR-1 (continued)			
UPR-100-N-29	UPR-100-N-29, 1304-N Dump Tank, Emergency Dump Tank Bypass Line Leak, UN-100-N-29	Unplanned Release	
UPR-100-N-30	UPR-100-N-30, 1304-N Dump Tank, Emergency Dump Tank Overflow, UN-100-N-30	Unplanned Release	
UPR-100-N-31	UPR-100-N-31, Radioactive Effluent Water Spill Near 1301-N, UN-100-N-31	Unplanned Release	
UPR-100-N-32	UPR-100-N-32, 1304-N Dump Tank, Emergency Dump Tank Bypass Line Leak, UN-100-N-32	Unplanned Release	
UPR-100-N-33	UPR-100-N-33, 108-N Acid Transfer Spill, UN-116-N-33, UN-100-N-33	Unplanned Release	
UPR-100-N-34	UPR-100-N-34, 108-N Tank Transfer, Sulfuric Acid Line Break, UN-100-N-34	Unplanned Release	
UPR-100-N-35	UPR-100-N-35, 100-N Fuel Basin Drainage System Leak, UN-116-N-35, 105-N Fuel Storage Basin Drainage System Leak, UN-100-N-35	Unplanned Release	
UPR-100-N-37	UPR-100-N-37, HGP Transformer Yard	Unplanned Release	
UPR-600-17	UPR-600-17, 600 Area Patrol Boat Spill, UN-600-17	Unplanned Release	
300-FF-1	**Ecology**		
316-5**	316-5, 3904 Process Waste Trenches, 300 Area Process Trenches, 300 APT	Trench	Closed Out (8/13/1998)
300-FF-1	**EPA**	**CPP**	
300 ASH PITS	300 ASH PITS, 300 Ash Pits, 300 Area Ash Pits	Coal Ash Pit	Closed Out (12/17/1997)
300 FBP	300 FBP, 300 Area Filter Backwash Pond	Surface Impoundment	No Action (2/19/1998)
300 RFBP	300 RFBP, 300 Area Retired Filter Backwash Pond, Pond 5, East Bay of South Process Pond	Pond	Record of Decision, 300-FF-1 and 300-FF-5 (1997)

Appendix C

Listing by Operable Unit. (Sheet 36 of 85)

OPERABLE UNIT Waste Unit Name	LEAD REGULATORY AGENCY Waste Unit Aliases	Unit Type	Status
300-FF-1 **(continued)**			
300-3	300-3, 300-FF-1 Aluminum Hydroxide	Burial Ground	No Action (7/9/1997)
300-44	300-44, R-32, UPR-300-FF-1, UN-300-FF-1	Unplanned Release	Closed Out (12/17/1997)
300-49	300-49, Landfill 1a, UPR-300-FF-1, UN-300-FF-1	Dumping Area	Record of Decision, 300-FF-1 and 300-FF-5 (1997)
300-50	300-50, Landfill 1b, UPR-300-FF-1, UN-300-FF-1	Dumping Area	Record of Decision, 300-FF-1 and 300-FF-5 (1997)
300-51	300-51, Landfill 1c, UPR-300-FF-1, UN-300-FF-1	Dumping Area	No Action (7/9/1997)
300-52	300-52, 300 Area Sanitary Trenches	Trench	No Action (7/9/1997)
316-1	316-1, South (old) Pond, 300 Area South Process Pond	Pond	Record of Decision, 300-FF-1 and 300-FF-5 (1997)
316-2	316-2, North (new) Pond, 300 Area North Process Pond	Pond	Closed Out (8/24/1999)
618-4	618-4, Burial Ground No. 4, 318-4	Burial Ground	Record of Decision, 300-FF-1 and 300-FF-5 (1997)
618-12	618-12, North Process Pond Scraping Disposal Area	Burial Ground	Closed Out (8/29/1999)
628-4	628-4, Landfill 1D	Burn Pit	Record of Decision, 300-FF-1 and 300-FF-5 (1997)
UPR-300-FF-1	UPR-300-FF-1, 300-FF-1 Hot Spots, Surface Radiation Survey for 300-FF-1, UN-300-FF-1,	Unplanned Release	Record of Decision, 300-FF-1 and 300-FF-5 (1997)
UPR-300-8	UPR-300-8, Caustic Spill from 311 Tank Farm to Process Sewer	Unplanned Release	Closed Out (5/14/1998)
UPR-300-9	UPR-300-9, Nitric Acid Leak from 306-W to the Process Sewer	Unplanned Release	Closed Out (5/14/1998)
UPR-300-15	UPR-300-15, Uranium Bearing Acid Release from 313 to the Process Sewer	Unplanned Release	Closed Out (5/14/1998)
UPR-300-19	UPR-300-19, Chemical Release to the Process Sewer	Unplanned Release	Closed Out (5/14/1998)
UPR-300-20	UPR-300-20, Acid Release to the Process Sewer	Unplanned Release	Closed Out (5/14/1998)

Appendix C

Listing by Operable Unit. (Sheet 37 of 85)

OPERABLE UNIT Waste Unit Name	LEAD REGULATORY AGENCY Waste Unit Aliases	Unit Type	Status
300-FF-1 **(continued)**			
UPR-300-21	UPR-300-21, Nitric Acid Release to the Process Sewer	Unplanned Release	Closed Out (5/14/1998)
UPR-300-22	UPR-300-22, Acid Release to the Process Sewer	Unplanned Release	Closed Out (5/14/1998)
UPR-300-23	UPR-300-23, Acid Release to the Process Sewer	Unplanned Release	Closed Out (5/14/1998)
UPR-300-24	UPR-300-24, Acid Release to the Process Sewer	Unplanned Release	Closed Out (5/14/1998)
UPR-300-25	UPR-300-25, Release to the Process Sewer	Unplanned Release	Closed Out (5/14/1998)
UPR-300-26	UPR-300-26, Caustic Release to the Process Sewer	Unplanned Release	Closed Out (5/14/1998)
UPR-300-27	UPR-300-27, Acid Release to the Process Sewer	Unplanned Release	Closed Out (5/14/1998)
UPR-300-28	UPR-300-28, Release to the Process Sewer	Unplanned Release	Closed Out (5/14/1998)
UPR-300-29	UPR-300-29, Release to the Process Sewer	Unplanned Release	Closed Out (5/14/1998)
UPR-300-30	UPR-300-30, Acid Release to the Process Sewer	Unplanned Release	Closed Out (5/14/1998)
UPR-300-32	UPR-300-32	Unplanned Release	Record of Decision, 300-FF-1 and 300-FF-5 (1997); Proximity Site to 316-1
UPR-300-33	UPR-300-33	Unplanned Release	Record of Decision, 300-FF-1 and 300-FF-5 (1997); Proximity Site to 316-1
UPR-300-34	UPR-300-34, Release to the Soil	Unplanned Release	Record of Decision, 300-FF-1 and 300-FF-5 (1997); Proximity Site to 316-1
UPR-300-35	UPR-300-35	Unplanned Release	Record of Decision, 300-FF-1 and 300-FF-5 (1997); Proximity Site to 316-1
UPR-300-36	UPR-300-36	Unplanned Release	Record of Decision, 300-FF-1 and 300-FF-5 (1997); Proximity Site to 316-1
UPR-300-37	UPR-300-37	Unplanned Release	Record of Decision, 300-FF-1 and 300-FF-5 (1997); Proximity Site to 316-1

Appendix C

Listing by Operable Unit. (Sheet 38 of 85)

OPERABLE UNIT Waste Unit Name	LEAD REGULATORY AGENCY Waste Unit Aliases	Unit Type	Status
300-FF-1 **(continued)**			
UPR-300-47	UPR-300-47, 309 Building, Ethylene Glycol Release, Glycol Spill from the 309, Chiller System	Unplanned Release	Closed Out (5/14/1998)
UPR-600-15	UPR-600-15, UN-600-15	Unplanned Release	Record of Decision, 300-FF-1 and 300-FF-5 (1997); Proximity Site to 618-4
300-FF-2	**Ecology**		
303-M SA**	303-M SA, 303-M Storage Area, 303-M Building Storage Area	Storage	
303-M UOF**	303-M UOF, 303-M Uranium Oxide Facility	Process Unit/Plant	
300-FF-2	**EPA**	**CPP**	
300 RLWS	300 RLWS, 300 Area RLWS, 300 Area Radioactive Liquid Waste Sewer	Radioactive Process Sewer	
300 RRLWS	300 RRLWS, 300 Area Retired RLWS, 300 Area Retired Radioactive Liquid Waste Sewer System, Crib Waste System, Contaminated Sewer, Intermediate Level Radioactive Liquid Waste System	Radioactive Process Sewer	
300 VTS	300 VTS, 300 Area Vitrification Test Site, In-Situ Vitrification (ISV) Test Site	Process Unit/Plant	
300-1	300-1, Old North Richland Automotive Maintenance Yard	Dumping Area	No Action (2/24/1999)
300-2	300-2, Contaminated Light Water Disposal	Trench	
300-4	300-4, DOE 351 Substation Soil Contamination	Unplanned Release	
300-5	300-5, 300 Area Fire Station Fuel Tanks, 3709A Fire Station	Unplanned Release	
300-7	300-7, Undocumented Solid Waste Burial Ground Adjacent to 618-8, Possible Early Burial Ground Site	Burial Ground	

Appendix C

Listing by Operable Unit. (Sheet 39 of 85)

OPERABLE UNIT Waste Unit Name	LEAD REGULATORY AGENCY Waste Unit Aliases	Unit Type	Status
300-FF-2 **(continued)**			
300-8	300-8, Aluminum Recycle Storage Area, North of Railroad and North of 618-8, Aluminum Shavings Area	Dumping Area	
300-9	300-9, Possible Early Burial Ground Sites North of RR and North of 618-8, Solid Waste Burial Ground	Burial Ground	
300-10	300-10, Burial Trench West of Process Trenches	Burial Ground	Closed Out (12/17/1997)
300-11	300-11, Pumphouse Underground Gasoline Tank, 382 Pumphouse UGT, 382-1	Unplanned Release	
300-15*	300-15, 300 Area Process Sewer System	Process Sewer	
300-16	300-16, Solid Waste Near 314 Building, Utility Pole Replacements	Unplanned Release	
300-18	300-18, SCA #4, Surface Contaminated Area #4	Dumping Area	
300-22	300-22, 309 Building B-Cell Cleanout Leak	Unplanned Release	
300-24	300-24, Soil Contamination at the 314 Metal Extrusion Building	Unplanned Release	
300-28	300-28, Solid Waste Site Near 303-G Building	Unplanned Release	
300-29	300-29, 305-B Berm, Source Location of UPR-600-11 Soil	Unplanned Release	
300-33	300-33, 306W Metal Fabrication Development Building Releases	Unplanned Release	
300-34	300-34, 300 Area Process Sewer Leak (found during Project L-070 excavation at manhole PS-87)	Unplanned Release	
300-40	300-40, Corrosion of Vitrified Clay Sewer Pipe	Unplanned Release	
300-43	300-43, Unplanned Release Outside the 304 Building	Unplanned Release	

Appendix C

Listing by Operable Unit. (Sheet 40 of 85)

OPERABLE UNIT Waste Unit Name	LEAD REGULATORY AGENCY Waste Unit Aliases	Unit Type	Status
300-FF-2 **(continued)**			
300-45	300-45, Surface Contamination Area, Location 3: Bird Droppings Area (Southwest corner of the 316-5 process Trenches Fence Line). SCA #1	Unplanned Release	Closed Out (12/17/1997)
300-46	300-46, Soil Contamination Surrounding 3706 Building	Unplanned Release	
300-48	300-48, Thorium Oxide and Fuel Fabrication Chemical Wastes Around 3732 Building	Unplanned Release	
300-53	300-53, Unplanned Release East Side of 303-G	Unplanned Release	Closed Out (2/12/1999)
300-80	300-80, 314 Building Stormwater Runoff and Steam Condensate, Miscellaneous Stream #268	French Drain	
300-109*	300-109, 333 Building Stormwater Runoff, Miscellaneous Stream #455	Injection/Reverse Well	
300-110*	300-110, 333 Building Stormwater Runoff, Miscellaneous Stream #456	Injection/Reverse Well	
300-121	300-121, 3621D Building Stormwater Runoff, Miscellaneous Stream #403, Injection Well #26, 36" Dry Well	French Drain	
300-175	300-175, 3714 Building Steam Condensate, Miscellaneous Stream #434	French Drain	
300-214*	300-214, 300 Area Retention Process Sewer	Radioactive Process Sewer	
300-224	300-224, WATS and U-Bearing Piping Trench	Trench	
300-251	300-251, Unplanned Release Outside the 303-K Building	Unplanned Release	
300-253	300-253, 384-W Original Brine Pit, 384-W Original Salt Dissolving Pit and Brine Pump Pit	Sump	No Action (5/26/1999)
300-255	300-255, 309 Tank Farm Contaminated Soil	Unplanned Release	
300-256	300-256, 306E Fabrication and Testing Laboratory Releases	Unplanned Release	
300-257	300-257, 309 Process Sewer To River	Process Sewer	

Appendix C

OPERABLE UNIT Waste Unit Name	LEAD REGULATORY AGENCY Waste Unit Aliases	Unit Type	Status
300-FF-2 **(continued)**			
300-258	300-258, Abandoned Pipe Trench Between 334 Tank Farm and 306E	Trench	
300-259	300-259, Contamination Area Surrounding 618-1 Burial Ground	Unplanned Release	
300-260	300-260, Contaminated Soil West of 313 Building	Unplanned Release	
300-262	300-262, Contaminated Soil West of South Process Pond	Unplanned Release	
300-263	300-263, 324 Building Diversion Tank	Catch Tank	
311 MT1	311 MT1, 311 Methanol Tank 1, 311 Tank Farm Underground Methanol Tank #1, 311-1	Storage Tank	Closed Out (2/12/1999)
311 MT2	311 MT2, 311 Methanol Tank 2, 311 Tank Farm Underground Methanol Tank #2, 311-2	Storage Tank	Closed Out (2/12/1999)
313 ESSP	313 ESSP, 313 East Side Storage Pad, 313 Building East Site Storage Pad	Storage	
313 MT	313 MT, 313 Methanol Tank, 313 Building Underground Methanol Storage Tank	Storage Tank	Closed Out (2/12/1999)
316-3	316-3, 307 Disposal Trenches, Process Water Trenches	Trench	
316-4	316-4, 321 Cribs, 300 North Cribs, 316-N-1, 616-4	Crib	
331 LSLDF	331 LSLDF, 331 LSL Drain Field, 331 Life Sciences Laboratory Drainfield	Drain/Tile Field	
331 LSLT1	331 LSLT1, 331 LSL Trench 1, 331 Life Sciences Laboratory Trench #1	Trench	
331 LSLT2	331 LSLT2, 331 LSL Trench 2, 331 Life Sciences Laboratory Trench #2	Trench	
333 ESHWSA	333 ESHWSA, 333 East Side HWSA, 333 Building East Side Hazardous Waste Storage Area	Storage	

Appendix C

Listing by Operable Unit. (Sheet 42 of 85)

OPERABLE UNIT Waste Unit Name	LEAD REGULATORY AGENCY Waste Unit Aliases	Unit Type	Status
300-FF-2 **(continued)**			
340 COMPLEX	340 COMPLEX, 340 Radioactive Liquid Waste Handling Facility	Storage Tank	
600-22	600-22, UFO Landing Site	Dumping Area	No Action (1/27/1999)
600-46	600-46, "Cutup" Oil Dump	Dumping Area	Closed Out (10/16/1995)
600-47	600-47, Dumping Area North of 300-FF-1	Dumping Area	
600-63*	600-63, 300-N Lysimeter Area, Recharge Study Site, Buried Waste Test Facility	Laboratory	
600-259	600-259, Inactive Lysimeter Site East End, Special Waste Form Lysimeter, Grout Waste Test Lysimeter	Laboratory	
618-1	618-1, Solid Waste Burial Ground No. 1, 318-1	Burial Ground	
618-1:1	618-1:1, 333 ESHTSSA, 333 East Side Heat Treat Salt Storage Area		
618-1:2	618-1:2, Limestone Neutralization Pit, WATS Trench Neutralization Pit		
618-2	618-2, Solid Waste Burial Ground No. 2, 318-2	Burial Ground	
618-3	618-3, Solid Waste Burial Ground No. 3, 318-3, Burial Ground #3, Dry Waste Burial Ground No. 3	Burial Ground	
618-5	618-5, Burial Ground No. 5, Regulated Burning Ground, 318-5	Burial Ground	
618-7	618-7, Solid Waste Burial Ground No. 7, Burial Ground #7, 318-7	Burial Ground	
618-8	618-8, Solid Waste Burial Ground No. 8, 318-8, Early Solid Waste Burial Ground	Burial Ground	
618-9	618-9, 300 West Burial Ground, 318-9, Dry Waste Burial Site No. 9	Burial Ground	Closed Out (10/7/1998)
618-10	618-10, 300 North Solid Waste Burial Ground, 318-10	Burial Ground	
618-11	618-11, Y Burial Ground, 318-11, 300 Wye Burial Ground	Burial Ground	

Appendix C

Listing by Operable Unit. (Sheet 43 of 85)

OPERABLE UNIT Waste Unit Name	LEAD REGULATORY AGENCY Waste Unit Aliases	Unit Type	Status
300-FF-2 **(continued)**			
618-13	618-13, 318-13, 303 Building Contaminated Soil Burial Site	Burial Ground	
UPR-300-1	UPR-300-1, 316-1A, 307-340 Waste Line Leak, UN-300-1	Unplanned Release	
UPR-300-2	UPR-300-2, Releases at the 340 Facility, UN-300-2, UN-316-2	Unplanned Release	
UPR-300-4	UPR-300-4, UN-300-4	Unplanned Release	
UPR-300-5	UPR-300-5, UN-300-5, Spill at 309 Storage Basin	Unplanned Release	
UPR-300-10	UPR-300-10, Contamination Under 325 Bldg., UN-300-10	Unplanned Release	
UPR-300-11	UPR-300-11, Underground Radioactive Liquid Line Leak, UN-300-11	Unplanned Release	
UPR-300-12	UPR-300-12, UN-300-12	Unplanned Release	
UPR-300-17	UPR-300-17, UN-300-17	Unplanned Release	
UPR-300-38	UPR-300-38, Soil Contamination Beneath the 313 Building	Unplanned Release	
UPR-300-39	UPR-300-39, UN-300-39	Unplanned Release	
UPR-300-40	UPR-300-40, Acid Release at the 303-F Pipe Trench, UN-300-40, UPR-300-31, UN-300-31	Unplanned Release	
UPR-300-41	UPR-300-41, 300 Area #340 Building Phosphoric Acid Spill, UN-300-41	Unplanned Release	Closed Out (2/24/1999)
UPR-300-45	UPR-300-45, 303-F Building Uranium-Bearing Acid Spill, UN-300-45	Unplanned Release	
UPR-300-46	UPR-300-46, Contamination North of 333 Building	Unplanned Release	
UPR-300-48	UPR-300-48, 325 Building Basement Topsy Pit	Unplanned Release	
UPR-600-22	UPR-600-22, WPPSS Windrow Site, 600-21	Unplanned Release	

Appendix C

Listing by Operable Unit. (Sheet 44 of 85)

OPERABLE UNIT Waste Unit Name	LEAD REGULATORY AGENCY Waste Unit Aliases	Unit Type	Status
200-CS-1	**Ecology**	**RPP**	
216-A-29**	216-A-29, Snow's Canyon, PUREX Chemical Sewer (CSL)	Ditch	
216-B-63**	216-B-63, B Plant Chemical Sewer, 216-B-63 Trench	Ditch	
216-S-10D**	216-S-10D, 216-S-10D Ditch, 202 Chemical Sump #1 and Ditch, Chemical Sewer Trench, Open Ditch to the Chemical Sewer Trench, 216-S-10 Ditch	Ditch	
216-S-10P**	216-S-10P, 216-S-10P Pond, 202-S Chemical Sump #1 and Ditch, Chemical Sewer Trench	Pond	
216-S-11	216-S-11, 202-S Chemical Sump #2, Chemical Sewer Trenches, 216-S-11 Swamp	Pond	
216-W-LWC	216-W-LWC, 216-W-LC, Laundry Waste Crib, 216-W-LWC Crib, 216-W-1	Crib	
UPR-200-W-34	UPR-200-W-34, Overflow of the 216-S-10 Ditch, UN-200-W-34	Unplanned Release	
200-CW-1	**Ecology**	**CPP**	
216-A-9	216-A-9, 216-A-9 Crib	Crib	
216-A-25	216-A-25, Gable Mountain Swamp, 216-A-25 Swamp, Gable Mountain Pond	Pond	
216-A-40	216-A-40 Retention Basin, 216-A-39 Crib, 216-A-39 Trench	Retention Basin	
216-A-42	216-A-42, 207-AA Retention Basin, 216-A-42 Trench, 216-A-42 Retention Basin	Retention Basin	
207-B	207-B, B Plant Retention Basin, 207-B Retention Basin	Retention Basin	
216-B-2-1	216-B-2-1, 216-B-1, B Swamp Ditch, 216-B-2, B Ditch	Ditch	
216-B-2-2	216-B-2-2, 216-B-2-2W, 216-B-1 Ditch	Ditch	

Appendix C

OPERABLE UNIT Waste Unit Name	LEAD REGULATORY AGENCY Waste Unit Aliases	Unit Type	Status
200-CW-1 **(continued)**			
216-B-2-3	216-B-2-3, B Pond Ditch, B Swamp Ditch, 216-B-2-2E	Ditch	
216-B-3**	216-B-3, B Pond, B-3 Pond, B Swamp, 216-B-3 Swamp, B Plant Swamp	Pond	
216-B-3-1	216-B-3-1, B Swamp Ditch, 216-B-2, 216-B-3 Ditch	Ditch	
216-B-3-2	216-B-3-2, 216-B Ditch, 216-B-1 Ditch, B Swamp Ditch, 216-B-2-2E	Ditch	
216-B-3-3**	216-B-3-3, B Swamp Ditch, 216-B-3-3 Ditch	Ditch	
216-B-3A RAD	216-B-3A RAD, 216-B-3A Expansion Lobe Residual Radioactive Waste, 216-B-3 1st Overflow Pond	Pond	
216-B-3B RAD	216-B-3B RAD, 216-B-3B Expansion Lobe Residual Radioactive Waste	Pond	
216-B-3C RAD	216-B-3C RAD, 216-B-3C Expansion Lobe Residual Radioactive Waste	Pond	
216-B-59	216-B-59, 216-B-58 Trench, 216-B-58 Ditch	Trench	
216-B-59B	216-B-59B, 216-B-59 Retention Basin	Retention Basin	
216-C-9	216-C-9, 216-C-7 Swamp, Former 221-C Canyon Excavation, 216-C-9 Swamp, Semi-Works Swamp, 216-C-9 C Canyon Excavation Semiworks Swamp	Pond	
200-E PD	200-E PD 200-E Powerhouse Ditch, 200 East Powerhouse Pond	Ditch	
216-N-8	216-N-8, West Lake, West Pond, 216-N-8 Pond, Honeyhill Pond, Seepage Pond	Pond	
UPR-200-E-14	UPR-200-E-14, UN-200-E-14, 216-B-3 Pond Dike Break	Unplanned Release	
UPR-200-E-32	UPR-200-E-32, UN-200-E-32, Coil Leak from 221-B	Unplanned Release	

Appendix C

OPERABLE UNIT Waste Unit Name	LEAD REGULATORY AGENCY Waste Unit Aliases	Unit Type	Status
200-CW-1 **(continued)**			
UPR-200-E-34	UPR-200-E-34, Liquid Release to B-Pond and Gable Pond, UN-200-E-34	Unplanned Release	
UPR-200-E-51	UPR-200-E-51, Liquid Release from Purex to B-Pond, UN-200-E-51	Unplanned Release	
UPR-200-E-66	UPR-200-E-66, 216-A-42 Basin Contamination Release, UN-216-E-66, UN-200-E-66	Unplanned Release	
UPR-200-E-94	UPR-200-E-94, Vehicle Decontamination Area, UN-216-E-22, UN-200-E-94	Unplanned Release	
UPR-200-E-138	UPR-200-E-138, Liquid release from B-Plant, UN-200-E-138, UPR-200-W-66, UN-216-W-66	Unplanned Release	
200-CW-2	**EPA**	**CPP**	
207-S	207-S, REDOX Retention Basin, 207-S Retention Basin	Retention Basin	
216-S-16D	216-S-16D, 202-S Swamp (New) and Ditch, 202-S Swamp #1, REDOX Pond #2, 216-S-24 Ditch	Ditch	
216-S-16P	216-S-16P, 202-S Swamp and Ditch, 202-S Swamp #1, REDOX Pond #2	Pond	
216-S-17	216-S-17, 202-S Swamp, 202-S REDOX Swamp, 216-S-1 REDOX Pond No. 1, REDOX Swamp, 216-S-1	Pond	
216-S-172	216-S-172, 216-S-172 Weir Box and Control Structure, 2904-S-172 Weir, 216-S-172 Control Structure	Control Structure	
2904-S-160	2904-S-160, 2904-S-160 Control Structure, 2904-S-160 Weir	Control Structure	
2904-S-170	2904-S-170, 2904-S-170 Weir Box, 2904-S-170 Control Structure	Control Structure	

Appendix C

OPERABLE UNIT Waste Unit Name	LEAD REGULATORY AGENCY Waste Unit Aliases	Unit Type	Status
200-CW-2 **(continued)**			
2904-S-171	2904-S-171, 2904-S-171 Weir Box, 2904-S-171 Control Structure	Control Structure	
UPR-200-W-13	UPR-200-W-13, Liquid Release from REDOX to 207-S and 216-S-17 Pond, UN-200-W-13	Unplanned Release	
UPR-200-W-15	UPR-200-W-15, Liquid Release from REDOX to 207-S and 216-S-17 Pond, UN-200-W-15	Unplanned Release	
UPR-200-W-47	UPR-200-W-47, 216-S-16P Dike Release, UN-200-W-47	Unplanned Release	
UPR-200-W-59	UPR-200-W-59, Contaminated Liquid Released to 216-S-16P	Unplanned Release	
UPR-200-W-95	UPR-200-W-95, UN-216-W-2, 207-S Retention Basin	Unplanned Release	
200-CW-3	**EPA**	**CPP**	
216-N-1	216-N-1, 212-N Swamp, 216-N-1 Swamp, 216-N-1 Covered Pond	Pond	Interim Record of Decision, 100 Area Remaining Sites (1999)†
216-N-2	216-N-2, 212-N Storage Basin Crib #1, 212-N #1 Trench, 216-N-1 Trench, 216-N-2 Trench	Trench	Interim Record of Decision, 100 Area Remaining Sites (1999)†
216-N-3	216-N-3, 212-N Storage Basin Crib #2, 212-N #2 Trench, 212-N #2 Grave, 212-N-2 Trench, 212-N-3 Trench	Trench	Interim Record of Decision, 100 Area Remaining Sites (1999)†
216-N-4	216-N-4, 216-N-2, 216-N-4 Swamp, 212-P Swamp	Pond	Interim Record of Decision, 100 Area Remaining Sites (1999)†
216-N-5	216-N-5, 212-P Storage Basin Crib, 212-P Trench, 212-P Grave, 216-N-5 Trench	Trench	Interim Record of Decision, 100 Area Remaining Sites (1999)†
216-N-6	216-N-6, 212-R Swamp, 216-N-6 Swamp	Pond	Interim Record of Decision, 100 Area Remaining Sites (1999)†
216-N-7	216-N-7, 212-R Storage Basin Crib, 212-R Trench, 212-R Grave, 216-N-7 Trench	Trench	Interim Record of Decision, 100 Area Remaining Sites (1999)†

Appendix C

Listing by Operable Unit. (Sheet 48 of 85)

OPERABLE UNIT Waste Unit Name	LEAD REGULATORY AGENCY Waste Unit Aliases	Unit Type	Status
200-CW-4	**EPA**	**CPP**	
207-T	207-T, T Plant Retention Basin, 207-T, 207-T Retention Basin	Retention Basin	
216-T-1	216-T-1, 221-T Ditch, 221-T Trench, 216-T-1 Trench	Ditch	
216-T-4-1D	216-T-4-1D, 216-T-4 Ditch, 216-T-4 Swamp	Ditch	
216-T-4-2	216-T-4-2, 216-T-4-2 Ditch	Ditch	
216-T-4A	216-T-4A, 216-T-4 Swamp, 216-T-4-1 (P), 216-T-4-1 Pond	Pond	
216-T-4B	216-T-4B, 216-T-4 New Pond, 216-T-4-2 (P), 216-T-4-2 Pond	Pond	
216-T-12	216-T-12, 207-T Sludge Grave, 207-T Sludge Pit, 216-T-11	Trench	
200-CW-5	**EPA**	**CPP**	
207-U*	207-U, 207-U Retention Basin	Retention Basin	
216-U-9	216-U-9, U Swamp-S Swamp Ditch, 216-U-6	Ditch	
216-U-10	216-U-10, U Swamp, 216-U-1, 216-U-10 Pond, 231 Swamp	Pond	
216-U-11	216-U-11, U Swamp Extension Ditch, 216-U-12, 216-U-11 Trench, 216-U-11 Ditch, 216-U-11 (old ditch), 216-U-11 (new ditch)	Ditch	
216-U-14	216-U-14, 216-U-14 Ditch, Laundry Ditch	Ditch	
216-Z-1D	216-Z-1D, 216-Z-1, Drain Ditch to U Swamp, Z Plant Ditch	Ditch	
216-Z-11	216-Z-11, 216-Z-11 Ditch, Z Plant Ditch	Ditch	
216-Z-19	216-Z-19, 216-U-10 Ditch, Z Plant Ditch, 216-Z-19 Ditch	Ditch	
216-Z-20	216-Z-20, Z-19 Ditch Replacement Tile Field	Crib	

Appendix C

OPERABLE UNIT Waste Unit Name	LEAD REGULATORY AGENCY Waste Unit Aliases	Unit Type	Status
200-CW-5 **(continued)**			
UPR-200-W-18	UPR-200-W-18, Liquid Release to 216-U-9	Unplanned Release	
UPR-200-W-104	UPR-200-W-104, UN-216-W-14, 216-U-10 Pond Leach Trench, U Pond Fingers	Unplanned Release	
UPR-200-W-105	UPR-200-W-105, UN-216-W-15, 216-U-10 Pond Leach Trench	Unplanned Release	
UPR-200-W-106	UPR-200-W-106, UN-216-W-16, 216-U-10 Pond Leach Trench	Unplanned Release	
UPR-200-W-107	UPR-200-W-107, UN-216-W-17, 216-U-10 Pond Flood Plain	Unplanned Release	
UPR-200-W-111	UPR-200-W-111, Sludge Trench at 207-U, UN-216-W-21	Unplanned Release	
UPR-200-W-112	UPR-200-W-112, Sludge Trench at 207-U, UN-216-W-22	Unplanned Release	
UPR-200-W-139	UPR-200-W-139, Liquid Release to the 216-U-9 Ditch, UN-200-W-139, UPR-200-W-18	Unplanned Release	
200-IS-1	**Ecology**	**RPP**	
241-A-151*	241-A-151, 241-A-151 Diversion Box	Diversion Box	
241-A-302A*	241-A-302A, 241-A-302-A Catch Tank	Catch Tank	
241-A-302B	241-A-302B, 241-A-302-B Catch Tank	Catch Tank	
241-B-154**	241-B-154, 241-B-154 Diversion Box	Diversion Box	
241-B-302B	241-B-302B, 241-B-302-B Catch Tank, 241-B-302	Catch Tank	
241-BX-154**	241-BX-154, 241-BX-154 Diversion Box	Diversion Box	
241-BX-155**	241-BX-155, 241-BX-155 Diversion Box	Diversion Box	
241-BX-302B	241-BX-302B, 241-BX-302-B Catch Tank	Catch Tank	
241-BX-302C	241-BX-302C, 241-BX-302-C Catch Tank	Catch Tank	
241-C-154**	241-C-154, 241-C-154 Diversion Box	Diversion Box	

Appendix C

Listing by Operable Unit. (Sheet 50 of 85)

OPERABLE UNIT Waste Unit Name	LEAD REGULATORY AGENCY Waste Unit Aliases	Unit Type	Status
200-IS-1 **(continued)**			
241-CX-70**	241-CX-70, 241-CX-TK-70 Tank, Strontium Hot Semi-works	Storage Tank	
241-CX-71**	241-CX-71, 241-CX-TK-71, 241-CX Neutralization Tank, Strontium Hot Semi-works	Neutralization Tank	
241-CX-72**	241-CX-72, 241-CX-TK-72 Vault and Tank, 241-CX-72 Waste Self Concentrator, Strontium Hot Semi-works	Storage Tank	
241-ER-151*	241-ER-151, 241-ER-151 Diversion Box	Diversion Box	
241-ER-152*	241-ER-152, 241-ER-152 Diversion Box	Diversion Box	
241-ER-311*	241-ER-311, 241-ER-311 Catch Tank	Catch Tank	
241-ER-311A	241-ER-311A, 241-ER-311A Catch Tank, old 241-ER-311	Catch Tank	
240-S-151**	240-S-151, 240-S-151 Diversion Box	Diversion Box	
240-S-152**	240-S-152, 240-S-152 Diversion Box	Diversion Box	
240-S-302	240-S-302, 240-S-302 Catch Tank	Catch Tank	
276-S-141**	276-S-141, 276-S-TK-141, 276-S-306A, 276-S-141 Solvent Storage Tank, Tank 276-141, Hexone Storage Tank, 244-SX-15	Storage Tank	
276-S-142**	276-S-142, 276-S-TK-142, 276-S-306B, 276-S-142 Solvent Storage Tank, Tank 276-142, Hexone Storage Tank, 244-SX-15	Storage Tank	
241-SX-302	241-SX-302, 241-SX-302 Catch Tank, SX-304	Catch Tank	
241-TX-152*	241-TX-152, 241-TX-152 Diversion Box	Diversion Box	
241-TX-154*	241-TX-154, 241-TX-154 Diversion Box	Diversion Box	
241-TX-155**	241-TX-155, 241-TX-155 Diversion Box	Diversion Box	
241-TX-302B	241-TX-302B, 241-TX-302-B Catch Tank	Catch Tank	

Appendix C

OPERABLE UNIT Waste Unit Name	LEAD REGULATORY AGENCY Waste Unit Aliases	Unit Type	Status
200-IS-1 **(continued)**			
241-TX-302BR	241-TX-302BR, 241-TX-302BR Catch Tank, 241-TXR-302BR	Catch Tank	
241-TX-302C*	241-TX-302C, 241-TX-302-C Catch Tank	Catch Tank	
216-TY-201	216-TY-201, Supernatant Disposal Flush Tank	Settling Tank	
241-U-151*	241-U-151, 241-U-151 Diversion Box	Diversion Box	
241-U-152*	241-U-152, 241-U-152 Diversion Box	Diversion Box	
241-UX-154*	241-UX-154, 241-UX-154 Diversion Box	Diversion Box	
241-UX-302A*	241-UX-302A, 241-U-302 Catch Tank, 241-UX-302 Catch Tank, 241-UX-302	Catch Tank	
200-W-7	200-W-7, 246-L, 243S-TK-1, 243-S-TK1	Catch Tank	
200-W-16	200-W-16, 292-T Underground Tanks	Storage Tank	
200-W-58	200-W-58, Z-Plant Diversion Box #1	Diversion Box	
200-W-59	200-W-59, Z-Plant Diversion Box #2	Diversion Box	
241-WR VAULT	241-WR VAULT, 241-WR Vault (Tanks -001 through -009), 241-WR Diversion Station Vault, 244-WR Vault	Receiving Vault	
241-Z**	241-Z, 241-Z Treatment and Storage Tanks, 241-Z Tank Farm, 241-Z Treatment and Storage System, 241-Z-D-4, 241-Z-D-5, 241-Z-D-7, 241-Z-D-8, 241-Z Sump, 241-Z Tank Pit	Neutralization Tank	
HSVP	HSVP, Hot Semiworks Valve Pit, 201-C Diversion Box, Semiworks Valve Pit	Valve Pit	
UPR-200-E-1	UPR-200-E-1, Waste Line Failure on South Side of 221-B	Unplanned Release	
UPR-200-E-3	UPR-200-E-3, Line leak from 221-B to 241-BX-154, UN-200-E-3	Unplanned Release	
UPR-200-E-25	UPR-200-E-25, Contamination Spread from the 241-A-151 Diversion Box, UN-200-E-25	Unplanned Release	

Appendix C

Listing by Operable Unit. (Sheet 52 of 85)

OPERABLE UNIT Waste Unit Name	LEAD REGULATORY AGENCY Waste Unit Aliases	Unit Type	Status
200-IS-1 **(continued)**			
UPR-200-E-26	UPR-200-E-26, 241-A-151 Release, UN-200-E-26	Unplanned Release	
UPR-200-E-31	UPR-200-E-31, 241-A-151 Release, UN-200-E-31	Unplanned Release	
UPR-200-E-41	UPR-200-E-41, UN-200-E-41 Soil Contamination in the Vicinity of R-13 Stairwell (221-B), UPR-200-E-85	Unplanned Release	
UPR-200-E-42	UPR-200-E-42, 241-AX-151 Release, UN-200-E-42	Unplanned Release	
UPR-200-E-44	UPR-200-E-44, UN-200-E-44, Waste Line Leak South of 221-B	Unplanned Release	
UPR-200-E-45	UPR-200-E-45, UN-200-E-45, Contamination Spread from the 241-B-154 Diversion Box	Unplanned Release	
UPR-200-E-65	UPR-200-E-65, UN-216-E-65, 241-A-151 Diversion Box Radioactive Contamination, UN-200-E-65	Unplanned Release	
UPR-200-E-67	UPR-200-E-67, UN-216-E-67, Radioactively Contaminated Pipe Encasement, UN-200-E-67	Unplanned Release	
UPR-200-E-77	UPR-200-E-77, UN-216-E-5, 241-B-154 Diversion Box Ground Contamination, UN-200-E-77	Unplanned Release	
UPR-200-E-78	UPR-200-E-78, UN-216-E-6, 241-BX-155 Diversion Box ground contamination, UN-200-E-78	Unplanned Release	
UPR-200-E-80	UPR-200-E-80, UN-216-E-8, 221-B R-3 Line Break, R-3 Radiation Zone, UN-200-E-80	Unplanned Release	
UPR-200-E-84	UPR-200-E-84,241-ER-151 Catch Tank Leak, UN-200-E-84, UN-216-E-12	Unplanned Release	
UPR-200-E-85	UPR-200-E-85, Line Leak at 221-B Stairwell R-13, UN-216-E-13, UPR-200-E-41, UN-200-E-85, UN-200-E-41	Unplanned Release	

Appendix C

Listing by Operable Unit. (Sheet 53 of 85)

OPERABLE UNIT Waste Unit Name	LEAD REGULATORY AGENCY Waste Unit Aliases	Unit Type	Status
200-IS-1 **(continued)**			
UPR-200-E-87	UPR-200-E-87, UN-216-E-15, 224-B South Side Plutonium Ground Contamination, UN-200-E-87, 216-E-15	Unplanned Release	
UPR-200-E-96	UPR-200-E-96, Ground Contamination SE of PUREX, UN-216-E-24, UN-200-E-96	Unplanned Release	
UPR-200-E-117	UPR-200-E-117, Contaminated Liquid Spill, UN-200-E-117	Unplanned Release	
UPR-200-W-2	UPR-200-W-2, UN-200-W-2, Underground Waste Line Leak	Unplanned Release	
UPR-200-W-5	UPR-200-W-5, Overflow at 241-TX-155, UN-200-W-5	Unplanned Release	
UPR-200-W-6	UPR-200-W-6, UN-200-W-6, Contamination Spread from 241-U-151 and 152 Diversion Boxes	Unplanned Release	
UPR-200-W-21	UPR-200-W-21, UN-200-W-21, Ground Contamination at 241-TX-154 Diversion Box	Unplanned Release	
UPR-200-W-27	UPR-200-W-27, Transfer Line Leak, UN-200-W-27	Unplanned Release	
UPR-200-W-28	UPR-200-W-28, Release from 241-TX-155 Diversion Box, UN-200-W-28	Unplanned Release	
UPR-200-W-29	UPR-200-W-29, Transfer Line Leak, UN-200-W-29, UPR-200-W-27, UN-200-W-27, UN-216-W-5, 23rd and Camden Line Break	Unplanned Release	
UPR-200-W-32	UPR-200-W-32, UNH Transfer Line Break, UN-200-W-32	Unplanned Release	
UPR-200-W-33	UPR-200-W-33, Ground Contamination at 224-U, UN-200-W-33	Unplanned Release	
UPR-200-W-35	UPR-200-W-35, Ground Contamination Near UNH Process Line, UN-200-W-35, REDOX to 224-U UNH Line Leak	Unplanned Release	

Appendix C

OPERABLE UNIT Waste Unit Name	LEAD REGULATORY AGENCY Waste Unit Aliases	Unit Type	Status
200-IS-1 **(continued)**			
UPR-200-W-38	UPR-200-W-38, Line Break at 241-TX-302, UPR-200-W-160, UPR-200-W-40, UN-200-W-38, 216-T-30, UN-216-W-36,	Unplanned Release	
UPR-200-W-40	UPR-200-W-40, Line Break at 241-TX-154,UPR-200-W-38, UPR-200-W-160, 216-T-30, UN-200-W-40,	Unplanned Release	
UPR-200-W-49	UPR-200-W-49, Contamination Southeast of 241-SX, UN-200-W-49	Unplanned Release	
UPR-200-W-64	UPR-200-W-64, Road Contamination, UN-200-W-64	Unplanned Release	
UPR-200-W-79	UPR-200-W-79, Contamination Spread at 241-Z, UN-200-W-79	Unplanned Release	
UPR-200-W-97	UPR-200-W-97, Transfer Line Leak, UN-216-W-5, UN-200-W-97	Unplanned Release	
UPR-200-W-98	UPR-200-W-98, UN-216-W-6, 221-T Waste Line Break at R-19, UN-200-W-98	Unplanned Release	
UPR-200-W-102	UPR-200-W-102, UN-216-W-12, UN-200-W-102	Unplanned Release	
UPR-200-W-113	UPR-200-W-113, Soil Contamination East of 241-TX, UN-216-W-23, UN-200-W-113	Unplanned Release	
UPR-200-W-114	UPR-200-W-114, UN-216-W-24, Ground Contamination East of 241-SX Tank Farm, UN-200-W-114	Unplanned Release	
UPR-200-W-115	UPR-200-W-115, UN-216-W-25, Ground Contamination Along Cooper Street	Unplanned Release	
UPR-200-W-131	UPR-200-W-131, Release from 241-TX-155	Unplanned Release	
UPR-200-W-135	UPR-200-W-135, Release from 241-TX-155, UN-200-2-135	Unplanned Release	
UPR-200-W-160	UPR-200-W-160, Line Break at 241-TX-302C, UPR-200-W-38, UPR-200-W-40, 216-T-30	Unplanned Release	

Appendix C

Listing by Operable Unit. (Sheet 55 of 85)

OPERABLE UNIT Waste Unit Name	LEAD REGULATORY AGENCY Waste Unit Aliases	Unit Type	Status
200-IS-1 **(continued)**			
UPR-200-W-161	UPR-200-W-161, UN-216-W-35, UN-200-W-161	Unplanned Release	
UPR-200-W-164	UPR-200-W-164, Overhead UNH Line Leak, UN-216-W-29	Unplanned Release	
UPR-200-W-167	UPR-200-W-167, Contamination Migration from 241-TY, UN-216-W-32	Unplanned Release	
UPR-600-20	UPR-600-20, UN-216-E-41, Cross Country Transfer Line	Unplanned Release	
200-LW-1	**Ecology**	**RPP**	
216-B-53A	216-B-53A, 216-B-53A Trench, PRTR Trench	Trench	
216-B-53B	216-B-53B, 216-B-53 Trench, 216-B-53B Trench	Trench	
216-B-54	216-B-54, 216-B-54 Trench	Trench	
216-B-58	216-B-58, 216-B-58 Trench, 216-B-59 Crib	Trench	
216-T-27	216-T-27, 216-TY-2 Cavern, 216-TY-2 Crib, 216-TX-2 Cavern, 216-TX-2 Crib	Crib	
216-T-28	216-T-28, 216-TY-3 Cavern, 216-TY-3 Crib, 216-TX-3 Cavern, 216-TX-3 Crib	Crib	
216-T-34	216-T-34	Crib	
216-T-35	216-T-35	Crib	
200-LW-2	**Ecology**	**RPP**	
216-A-15	216-A-15, Miscellaneous Stream #461	French Drain	
216-B-6	216-B-6, 222-B-110 Reverse Well, 216-B-6 Dry Well, 216-B-6 Crib, 222-B-110 Dry Well	Injection/Reverse Well	
216-B-10A	216-B-10A, 222-B-1 Crib, 216-B-10 Crib, 292-B	Crib	
216-B-10B	216-B-10B, 222-B-2 Crib, 216-B-10 Crib	Crib	

Appendix C

Listing by Operable Unit. (Sheet 56 of 85)

OPERABLE UNIT Waste Unit Name	LEAD REGULATORY AGENCY Waste Unit Aliases	Unit Type	Status
200-LW-2 **(continued)**			
216-S-19	216-S-19, 222-S Lab Swamp, 216-SL-1, REDOX Lab Swamp, 216-S-19 Pond	Pond	
216-S-20	216-S-20, 216-SL-1&2 Crib, 216-SL-2	Crib	
216-S-26	216-S-26, 216-S-19 Replacement Facility, 216-S-26 Crib	Crib	
207-SL*	207-SL, 222-S Retention Basin, REDOX Lab Retention Basin, 207-SL Retention Basin	Retention Basin	
216-T-2	216-T-2, 222-T-110 Dry Well, 222-T Reverse Well	Injection/Reverse Well	
216-T-8	216-T-8, 222-T-1 & 2 Cribs	Crib	
216-U-4	216-U-4, 222-U Dry Well, 222-U-110 Dry Well, 216-U-2, 216-U-4 Dry Well	Injection/Reverse Well	
216-U-4A	216-U-4A, 216-U-4 Reverse Well/4a French Drain, 216-U-4 Dry Well	French Drain	
216-U-4B	216-U-4B, 216-U-4B Dry Well, 216-U-4B French Drain	French Drain	
216-Z-7	216-Z-7, 231-W Crib, 231-W Trench, 216-Z-6	Crib	
216-Z-16	216-Z-16	Crib	
216-Z-17	216-Z-17, 216-Z-17 Ditch	Trench	
CTFN 2703-E	CTFN 2703-E, Chemical Tile Field North of 2703-E	Drain/Tile Field	
200-MW-1	**EPA**	**CPP**	
216-A-4	216-A-4, 216-A-4 Cavern	Crib	
216-A-11	216-A-11 French Drain, Miscellaneous Stream #465	French Drain	
216-A-12	216-A-12, Miscellaneous Stream #463	French Drain	
216-A-13	216-A-13, 216-A-13 French Drain, Miscellaneous Stream #460	French Drain	

Appendix C

Listing by Operable Unit. (Sheet 57 of 85)

OPERABLE UNIT Waste Unit Name	LEAD REGULATORY AGENCY Waste Unit Aliases	Unit Type	Status
200-MW-1 **(continued)**			
216-A-14	216-A-14, French Drain - Vacuum Cleaner Filter Pit, Miscellaneous Stream #462	French Drain	
216-A-21	216-A-21	Crib	
216-A-22	216-A-22, 216-A-22 French Drain, 216-A-22 Crib	Crib	
216-A-26	216-A-26, 216-A-26 French Drain, 216-A-26B, Miscellaneous Stream #464	French Drain	
216-A-26A	216-A-26A, 216-A-25 Crib, 216-A-26 French Drain, 291-A French Drain	French Drain	
216-A-27	216-A-27	Crib	
216-A-32	216-A-32	Crib	
216-A-33	216-A-33, 216-A-33 Dry Well, 216-A-26B	French Drain	
216-A-35	216-A-35 French Drain, 216-A-35 Dry Well	French Drain	
216-A-38-1	216-A-38-1, 216-A-38 Crib	Crib	
216-A-41	216-A-41	Crib	
216-B-4	216-B-4, 216-B-4 French Drain, 216-B-4 Dry Well	Injection/Reverse Well	
216-B-13	216-B-13, 216-B-13 French Drain, 291-B Crib, 216-B-B, 216-B-13 Crib	French Drain	
216-B-56	216-B-56	Crib	
216-B-61	216-B-61, 216-B-61 Crib	Crib	
216-C-2	216-C-2, 291-C Dry Well, 216-C-2 Dry Well	Injection/Reverse Well	
2704-C-WS-1	2704-C-WS-1, 2704-C French Drain, Gatehouse French Drain	French Drain	
200-E-4*	200-E-4, Critical Mass Laboratory Dry Well North, 209-E North Dry Well, Miscellaneous Stream #730	French Drain	

Appendix C

Listing by Operable Unit. (Sheet 58 of 85)

OPERABLE UNIT Waste Unit Name	LEAD REGULATORY AGENCY Waste Unit Aliases	Unit Type	Status
200-MW-1 **(continued)**			
209-E-WS-1	209-E-WS-1, 209-E French Drain	French Drain	
209-E-WS-2	209-E-WS-2, Critical Mass Lab French Drain	French Drain	
299-E24-111	299-E24-111, Experimental Test Well Site	Injection/Reverse Well	
2718-E-WS-1*	2718-E-WS-1, 2718 French Drain	French Drain	
216-S-12	216-S-12, UPR-200-W-30, 291-S Stack Wash Sump, REDOX Stack Flush Trench	Trench	
216-S-18	216-S-18, 241-SX Steam Cleaning Pit, 216-S-14 Steam Cleaning Pit	Trench	
216-SX-2	216-SX-2 Crib	Crib	
216-T-9	216-T-9, Decontamination Trenches, Equipment Decontamination Area	Trench	
216-T-10	216-T-10, Decontamination Trenches, Equipment Decontamination Area	Trench	
216-T-11	216-T-11, Decontamination Trenches, Equipment Decontamination Area	Trench	
216-T-13	216-T-13, 269-W Regulated Garage, 269-W Decontamination Pit or Trench, 216-T-12, 269-W Regulated Garage Decontamination Pit	Trench	
216-T-29	216-T-29, 291-T Sand Filter Sewer, 216-T-29 French Drain	French Drain	
216-T-31	216-T-31	French Drain	
216-T-33	216-T-33	Crib	
216-U-3	216-U-3, 216-U-11, 216-U-3 French Drain	French Drain	
216-U-7	216-U-7, 221-U Vessel Vent Blower Pit French Drain	French Drain	
216-U-13	216-U-13, 216-U-13 Cribs, 216-U-13, 241-UR Steam Cleaning Pit	Trench	
200-W PP	200-W PP, 200-W Powerhouse Pond, 200 West Powerhouse Ponds, 284-W-B	Pond	

Appendix C

OPERABLE UNIT Waste Unit Name	LEAD REGULATORY AGENCY Waste Unit Aliases	Unit Type	Status
200-MW-1	**(continued)**		
216-Z-13*	216-Z-13, 234-5 Dry Well #1, 216-Z-13 Dry Well	French Drain	
216-Z-14*	216-Z-14, 234-5 Dry Well #2, 216-Z-14 Dry Well	French Drain	
216-Z-15*	216-Z-15, 234-5 Dry Well #3, 216-Z-15 Dry Well	French Drain	
216-Z-21	216-Z-21, 216-Z-21 Seepage Basin, PFP Cold Waste Pond	Pond	
616-WS-1*	616-WS-1, 616 NDWSF French Drain	French Drain	
UPR-200-E-13	UPR-200-E-13, Overflow from 216-A-4, UN-200-E-13, UPR-200-E-15	Unplanned Release	
UPR-200-E-15	UPR-200-E-15, Overflow at 216-A-4, UN-200-E-15, UPR-200-E-13	Unplanned Release	
UPR-200-E-17	UPR-200-E-17, Overflow at 216-A-22, UN-200-E-17	Unplanned Release	
UPR-200-W-30	UPR-200-W-30, 216-S-12, UN-200-W-30	Trench	
UPR-200-W-138	UPR-200-W-138, 221-U Vessel Vent Blower Pit French Drain, UN-216-W-11, UN-200-W-138, UN-200-W-22, UPR-200-W-22	Unplanned Release	
200-PW-1	**EPA**	**CPP**	
216-T-19	216-T-19, 241-TX-153 Crib and Tile Field, 216-TX-1, 241-TX-3, 216-T-19TF	Crib	
216-Z-1&2	216-Z-1&2, 234-5 No. 1 Crib, 216-Z-7, 234-5 No. 2 Crib, 216-Z-1 & 2TF, 216-Z-1 and 216-Z-2 Cribs	Crib	
216-Z-1A	216-Z-1A, 216-Z-1A Tile Field, 216-Z-7, 234-5 Tile Field, 216-Z-1AA, 216-Z-1AB, 216-Z-1AC	Drain/Tile Field	
216-Z-3	216-Z-3, 216-Z-3 Culvert, 216-Z-8, 234-5 No. 3 & 4 Cribs	Crib	

Appendix C

Listing by Operable Unit. (Sheet 60 of 85)

OPERABLE UNIT Waste Unit Name	LEAD REGULATORY AGENCY Waste Unit Aliases	Unit Type	Status
200-PW-1 **(continued)**			
216-Z-9	216-Z-9, 216-Z-9 Cavern, 234-5 Recuplex Cavern, 216-Z-10, 216-Z-9 Crib, 216-Z-9 Trench	Trench	
216-Z-12	216-Z-12, 241-Z-12 Crib	Crib	
216-Z-18	216-Z-18, 216-Z-18 Crib	Crib	
241-Z-361	241-Z-361, 241-Z-361 Settling Tank	Settling Tank	
UPR-200-W-103	UPR-200-W-103, 216-Z-18 Line Break, UN-216-W-13, UN-200-W-103	Unplanned Release	
UPR-200-W-110	UPR-200-W-110, Contaminated Soil at 216-Z-1, UN-216-W-20 Spoil Trench	Trench	
200-PW-2	**Ecology**	**RPP**	
216-A-1	216-A-1, 216-A-1 Cavern, 216-A-1 Trench	Crib	
216-A-3	216-A-3, 216-A-3 Cavern, 216-A-3 Crib	Crib	
216-A-5	216-A-5, 216-A-5 Cavern	Crib	
216-A-10**	216-A-10, 216-A-10 Crib	Crib	
216-A-18	216-A-18, 216-A-18 Excavation, 216-A-18 Grave, 216-A-18 Sump, 216-A-18 Crib	Trench	
216-A-19	216-A-19, 216-A-19 Test Hole, 216-A-19 Grave, 216-A-19 Sump, 216-A-19 Crib	Trench	
216-A-20	216-A-20, 216-A-20 Test Hole, 216-A-20 Grave, 216-A-20 Sump, 216-A-20 Crib	Trench	
216-A-28	216-A-28, 216-A-28 French Drain, 216-A-28 Crib	Crib	
216-A-36A	216-A-36A, 216-A-36 Crib	Crib	
216-A-36B**	216-A-36B, 216-A-36 Crib, Purex Ammonia Scrubber Distillate (ASD)	Crib	
216-B-12	216-B-12, 216-ER Crib, 216-ER-1,2,3 Cribs	Crib	
216-B-60	216-B-60, 216-B-60 Crib	Crib	

Appendix C

Listing by Operable Unit. (Sheet 61 of 85)

OPERABLE UNIT Waste Unit Name	LEAD REGULATORY AGENCY Waste Unit Aliases	Unit Type	Status
200-PW-2 **(continued)**			
216-C-1	216-C-1, 216-C-1 Crib, 216-C Crib	Crib	
270-E-1	270-E-1, 270--E CNT, 270-E Condensate Neutralization Tank, 216-ER-1	Neutralization Tank	
216-S-1&2	216-S-1&2, 216-S-5 Crib, 216-S-1 & 2	Crib	
216-S-7	216-S-7, 216-S-7 Crib 216-S-15	Crib	
216-S-8	216-S-8, Cold Aqueous Trench, Cold Aqueous Crib, 216-S-3, Unirradiated Uranium Waste Trench, Cold Aqueous Grave	Trench	
216-U-1&2	216-U-1&2, 361-WR (Crib 2), 216-U-3, 216-UR #1&2 Cribs, 216-U-1 & 2	Crib	
216-U-5	216-U-5, 216-U-4, 221-U Cold U Trench #2	Trench	
216-U-6	216-U-6, U Facility Unirradiated Uranium Waste Trench, 221-U Cold U Trench, 216-U Cold U Trench #1, 216-U-5, 221-U Cold U Grave #1	Trench	
216-U-8	216-U-8, 216-WR-1,2,3 Cribs, 216-U-9	Crib	
216-U-12**	216-U-12, 216-U-12 Crib	Crib	
241-U-361	241-U-361, 241-U-361 Settling Tank, 361-U-TANK	Settling Tank	
270-W	270-W, 270-W Tank, 270-W Neutralization Tank	Neutralization Tank	
UPR-200-E-39	UPR-200-E-39, Release from 216-A-36B Crib Sampler (295-A), UN-200-E-39	Unplanned Release	
UPR-200-E-40	UPR-200-E-40, Release from the 216-A-36B Crib Sampler, UN-200-E-40	Unplanned Release	
UPR-200-E-64	UPR-200-E-64, Radioactive Soil and Ant Hills, UN-200-E-64, UN-216-E-36	Unplanned Release	
UPR-200-W-19	UPR-200-W-19, 241-U-361 Overflow, UN-200-W-19	Unplanned Release	

Appendix C

OPERABLE UNIT Waste Unit Name	LEAD REGULATORY AGENCY Waste Unit Aliases	Unit Type	Status
200-PW-2 **(continued)**			
UPR-200-W-36	UPR-200-W-36, Groundwater Contamination at 216-S-1 and 216-S-2	Unplanned Release	
UPR-200-W-163	UPR-200-W-163, Contaminated Vegetation at the 216-U-8 Pipeline, UN-216-W-33	Unplanned Release	
200-PW-3	**EPA**	**CPP**	
216-A-2	216-A-2, 216-A-2 Cavern	Crib	
216-A-7	216-A-7, 216-A-7 Cavern	Crib	
216-A-8	216-A-8, 216-A-8 Crib	Crib	
216-A-24	216-A-24	Crib	
216-A-31	216-A-31 Crib	Crib	
216-A-524	216-A-524, 216-A-524 Control Structure, 216-A 524 Weir	Control Structure	
216-C-4	216-C-4, 216-C-4 Crib	Crib	
216-S-13	216-S-13, 276-S Crib, 216-S-6	Crib	
216-S-14	216-S-14, Buried Contaminated Hexone, Cold Organic Trench or Grave, 216-S-4 Burial Contaminated Hexone	Trench	
216-U-15	216-U-15, UN-216-W-10, 388-U Tank Dumping, UPR-200-W-125, UN-200-W-158, U-152 Interface Crud Burial	Trench	
UPR-200-E-56	UPR-200-E-56, 216-A-24 Crib Excavation, Excavated Contamination Adjacent to 216-A-24 Crib, UN-200-E-56, UN-216-E-33	Unplanned Release	
UPR-200-W-125	UPR-200-W-125, 216-U-15, UN-200-W-125, UN-216-W-10	Trench	
200-PW-4	**Ecology**	**RPP**	
207-A-SOUTH**	207-A-SOUTH, 207-A, 207-A Retention Basin, 207-A-SOUTH Retention Basin, 207-A South	Retention Basin	

Appendix C

Listing by Operable Unit. (Sheet 63 of 85)

OPERABLE UNIT Waste Unit Name	LEAD REGULATORY AGENCY Waste Unit Aliases	Unit Type	Status
200-PW-4 **(continued)**			
216-A-34	216-A-34, 216-A-34 Ditch, 216-A-34 Crib	Ditch	
216-A-37-1**	216-A-37-1, 216-A-37 Crib	Crib	
216-A-45	216-A-45, 216-A-45 Crib	Crib	
216-C-3	216-C-3, 201-C Leaching Pit, 216-C-3 Crib	Crib	
216-C-5	216-C-5, 216-C-5 Crib	Crib	
216-C-7	216-C-7, 216-C-7 Crib	Crib	
216-C-10	216-C-10, 216-C-10 Crib	Crib	
209-E-WS-3	209-E-WS-3, Critical Mass Laboratory Valve Pit and Hold Up Tank (209-E-TK-111)	Valve Pit	
209-E-WS-3:1	209-E-WS-3:1, 209-E-TK-111 Hold Up Tank		
216-S-4	216-S-4, 216-S-7, 216-S-4 Sump or Crib, UN-216-W-1	French Drain	
216-S-22	216-S-22, 216-S-22 Crib	Crib	
216-S-23	216-S-23, 216-S-23 Crib	Crib	
216-T-20	216-T-20, 155-TX, 216-TX-2, 216-T-20 Crib, Contaminated Acid Grave	Trench	
216-U-16	216-U-16, UO3 Crib	Crib	
216-U-17	216-U-17, 216-U-17 Crib	Crib	
UPR-200-E-145	UPR-200-E-145, W049H Green Soil, VCP Pipeline Leak	Unplanned Release	
200-PW-5	**EPA**	**CPP**	
216-B-11A&B	216-B-11A&B, 216-B-11 Crib, 242-B-1 Crib, 216-B-11A & B	French Drain	
216-B-50	216-B-50, 216-BY-8 Crib, 216-BY-8 Cavern	Crib	
216-B-57	216-B-57, 216-B-57 Enclosed Trench, Hanford Prototype Barrier	Crib	

Appendix C

Listing by Operable Unit. (Sheet 64 of 85)

OPERABLE UNIT Waste Unit Name	LEAD REGULATORY AGENCY Waste Unit Aliases	Unit Type	Status
200-PW-5 **(continued)**			
216-B-62	216-B-62, 216-B-62 Enclosed Trench, 216-B-62 Crib	Crib	
216-C-6	216-C-6, 241-CX Crib	Crib	
216-S-9	216-S-9	Crib	
216-S-21	216-S-21, 216-SX-1, 216-SX-1 Cavern or Crib	Crib	
UPR-200-W-108	UPR-200-W-108, Line leak at 216-S-9 Crib, UN-216-W-18, UN-200-W-108	Unplanned Release	
UPR-200-W-109	UPR-200-W-109, Waste Line Leak near 218-W-9, UN-216-W-19, UN-200-W-109	Unplanned Release	
200-PW-6	**EPA**	**CPP**	
231-W-151	231-W-151, 231-W-151 Vault, 231-W-151-001 (Tank), 231-W-151-002 (Tank), 231-W-151 Sump, 231-Z-151 Sump	Receiving Vault	
231-W-151:1	231-W-151:1, 231-W-151-001		
231-W-151:2	231-W-151:2, 231-W-151-002		
216-Z-4	216-Z-4, 231-W-3 Pit, 231-W-3 Sump, 231-W-3 Crib, 216-Z-3, 216-Z-4 Crib	Trench	
216-Z-5	216-Z-5, 231-W Sumps, 231-W-1 & 2 Cribs	Crib	
216-Z-6	216-Z-6, 231-W-4 Crib, 231-Z-6, 216-W-4, 231-W "Trench" Crib, 216-Z-4, 216-Z-6 & 6A Crib	Crib	
216-Z-8	216-Z-8, 234-5 Recuplex French Drain, 216-Z-9, 216-Z-8 Crib	French Drain	
216-Z-10	216-Z-10, 216-Z-2, 231-W Reverse Well, 231-W-150 Dry Well or Reverse Well	Injection/Reverse Well	
241-Z-8	241-Z-8, 241-Z-TK-8, Silica Slurry Tank, 216-Z-8	Settling Tank	
UPR-200-W-130	UPR-200-W-130, Line Leak at 231-W-151 Sump, UN-200-W-130	Unplanned Release	

Appendix C

Listing by Operable Unit. (Sheet 65 of 85)

OPERABLE UNIT Waste Unit Name	LEAD REGULATORY AGENCY Waste Unit Aliases	Unit Type	Status
200-SC-1	**EPA**	**CPP**	
207-A-NORTH	207-A-NORTH, 207-A, 207-A Retention Basin, 207-A-NORTH Retention Basin, 207-A North	Retention Basin	
216-A-6	216-A-6, 216-A-6 Cavern	Crib	
216-A-30	216-A-30, 216-A-30 Crib	Crib	
216-A-37-2	216-A-37-2, 216-A-37-2 Crib	Crib	
216-B-55	216-B-55, 216-B-55 Enclosed Trench, 216-B-55 Crib	Crib	
216-B-64	216-B-64, 216-B-64 Retention Basin, 216-B-64 Trench, 216-B-64 Crib	Retention Basin	
216-S-5	216-S-5, 216-S-5 Cavern #1, 216-S-6 Crib, 216-S-9	Crib	
216-S-6	216-S-6, 216-S-6 Cavern #2, 216-S-5 Crib, 216-S-13 Crib	Crib	
216-S-25	216-S-25, 216-S-25 Crib	Crib	
216-T-36	216-T-36	Crib	
207-Z	207-Z, 207-Z Retention Basin, 241-Z Retention Basin, 241-Z-RB	Retention Basin	
UPR-200-E-19	UPR-200-E-19, Contamination Release at 216-A-6 Sampler, UN-200-E-19	Unplanned Release	
UPR-200-E-21	UPR-200-E-21, 216-A-6 Overflow, UN-200-E-21	Unplanned Release	
UPR-200-E-29	UPR-200-E-29, 216-A-6 Overflow, UN-200-E-29	Unplanned Release	
200-ST-1	**Ecology**	**RPP**	
200-E-5	200-E-5, 2607-E2, 2607-E2 Septic Tank & Tile Field	Septic Tank	

Appendix C

OPERABLE UNIT Waste Unit Name	LEAD REGULATORY AGENCY Waste Unit Aliases	Unit Type	Status
200-ST-1 **(continued)**			
200-E-6*	200-E-6, Septic Tank, Sanitary Sewer Repair and Replacement 2607-E4	Septic Tank	
200-E-7	200-E-7, 2607-EO Septic Tank & Tile Field	Septic Tank	
200-E-9*	200-E-9, 2607-EN, 2727-E Septic System, 2607-EN Septic Tank/Pump Station	Septic Tank	
200-E-24*	200-E-24, 6607-11, 2704-HV Septic System	Septic Tank	
2607-E1*	2607-E1	Septic Tank	
2607-E3*	2607-E3	Septic Tank	
2607-E4	2607-E4	Septic Tank	
2607-E5*	2607-E5	Septic Tank	
2607-E6*	2607-E6	Septic Tank	
2607-E7A*	2607-E7A, 2607-E7	Septic Tank	
2607-E7B*	2607-E7B, 2607-E7B Septic System, 2607-E7	Septic Tank	
2607-E8*	2607-E8	Septic Tank	
2607-E9	2607-E9, 242B/BL Septic Tank	Septic Tank	
2607-E11*	2607-E11	Septic Tank	
2607-E12*	2607-E12, 2607-E12 Septic System	Septic Tank	
2607-EA*	2607-EA, 2607-EA Septic Tank and Drywell	Septic Tank	
2607-EC*	2607-EC	Septic Tank	
2607-EE	2607-EE, 2607-EL	Septic Tank	
2607-EH*	2607-EH	Septic Tank	
2607-EK*	2607-EK	Septic Tank	
2607-EL*	2607-EL, 2607-EL Septic Tank/Pump Station	Septic Tank	
2607-EM*	2607-EM	Septic Tank	
2607-EP*	2607-EP	Septic Tank	

Appendix C

OPERABLE UNIT Waste Unit Name	LEAD REGULATORY AGENCY Waste Unit Aliases	Unit Type	Status
200-ST-1 **(continued)**			
2607-EQ*	2607-EQ	Septic Tank	
2607-ER*	2607-ER	Septic Tank	
2607-FSM*	2607-FSM, 609 Building Septic Tank 2607-FSM, 100 Area Fire Station Septic Tank, 1607-FSM, 6607-FSM	Septic Tank	
2607-FSN	2607-FSN, 609A Building Septic Tank 2607-FSN	Septic Tank	
2607-GF*	2607-GF	Septic Tank	
2607-N	2607-N	Septic Tank	
2607-P	2607-P	Septic Tank	
2607-R	2607-R	Septic Tank	
2607-W1*	2607-W1	Septic Tank	
2607-W2	2607-W2	Septic Tank	
2607-W3	2607-W3	Septic Tank	
2607-W4	2607-W4, T Plant Septic Tank and Drain Field	Septic Tank	
2607-W5*	2607-W5, Septic Tank	Septic Tank	
2607-W6*	2607-W6	Septic Tank	
2607-W7	2607-W7, Septic Tank	Septic Tank	
2607-W8*	2607-W8	Septic Tank	
2607-W9	2607-W9	Septic Tank	
2607-WA*	2607-WA	Septic Tank	
2607-WC*	2607-WC, 2607-WC Septic System	Septic Tank	
2607-WL	2607-WL, 2607-WL Septic System	Septic Tank	
2607-WWA*	2607-WWA	Septic Tank	
2607-WZ	2607-WZ	Septic Tank	

Appendix C

OPERABLE UNIT Waste Unit Name	LEAD REGULATORY AGENCY Waste Unit Aliases	Unit Type	Status
200-ST-1 **(continued)**			
2607-Z	2607-Z	Septic Tank	
2607-Z8*	2607-Z8	Septic Tank	
600 ESST	600 ESST, 600 Area Exploratory Shaft Septic Tank, Septic Tank - Exploratory Shaft	Septic Tank	
600 NSTFST	600 NSTFST, 600 Area Near Surface Test Facility Septic Tank, Septic Tank, Near Surface Test Facility	Septic Tank	
600 NSTFUT	600 NSTFUT, 600 Area Near Surface Test Facility Underground Tank, Underground Tank, Near Surface Test Facility	Storage Tank	
622-R ST*	622-R ST, 622-R Septic Tank, 622-R Atmospheric Physics Laboratory Septic Tank	Septic Tank	
6607-1	6607-1, H-40 Gun Site Septic Tank	Septic Tank	
6607-2	6607-2, Gun Site H-42 Septic Tank	Septic Tank	
6607-3	6607-3, Anti-Aircraft Artillery Site H-51 Septic Tank	Septic Tank	
6607-5*	6607-5	Septic Tank	
TFS OF 218-E-4*	TFS OF 218-E-4, Tile Field South of 218-E-4	Drain/Tile Field	
200-SW-1	**Ecology**		
200 CP	200 CP, 200 Area Construction Pit, 200 Area Construction Waste Site, Hanford Site Gravel Pit #29	Depression/Pit (nonspecific)	
200-E BP	200-E BP, 200-E Burning Pit, 200 East Burning Pit	Burn Pit	
200-E PAP*	200-E PAP, 200-E Powerhouse Ash Pit and Ash Disposal Pile	Coal Ash Pit	
200-E-1	200-E-1, 284E Inert Landfill	Dumping Area	
200-E-2	200-E-2, 2101-M SW Parking Lot, MO-234 parking Lot	Unplanned Release	

Appendix C

OPERABLE UNIT Waste Unit Name	LEAD REGULATORY AGENCY Waste Unit Aliases	Unit Type	Status
200-SW-1 **(continued)**			
200-E-10	200-E-10, Paint/Solvent Dump South of Sub Trenches, 200-E-3 Toluene Dump Site	Dumping Area	
200-E-12*	200-E-12, Sand Piles from RCRA General Inspection 200EFY95 Item #5	Laboratory	
200-E-13	200-E-13, Rubble Piles from RCRA General Inspection #200EFY95 Item #7	Dumping Area	
218-E-6	218-E-6, B Stack Shack Burning Pit, Buried Contamination	Burial Ground	
200-N-3	200-N-3, Ballast Pits	Depression/Pit (nonspecific)	
200-W ADB	200-W ADB, 200-W Ash Disposal Basin	Coal Ash Pit	
200-W BP	200-W BP, 200-W Burning Pit	Burn Pit	
200-W CSLA	200-W CSLA, 200-W Construction Surface Laydown Area, Non-Rad Burial Ground, Construction Surface Laydown Area	Dumping Area	
200-W PAP	200-W PAP, 200-W Powerhouse Ash Pit	Coal Ash Pit	
200-W-1	200-W-1, REDOX Mud Pit West	Mud Pit	
200-W-2	200-W-2, REDOX Berms West	Spoils Pile/Berm	
200-W-3	200-W-3, 2713-W North Parking Lot, 220-W-1	Dumping Area	
200-W-6	200-W-6, 200-W Painter Shop paint solvent disposal area	Dumping Area	
200-W-10	200-W-10, Item 10 (RCRA General Inspection), Grout Wall Test	Depression/Pit (nonspecific)	
200-W-11	200-W-11, Concrete Foundation South of 241-S, S-Farm Foundation and Dump Site	Dumping Area	
218-W-6**	218-W-6 Burial Ground	Burial Ground	
600 BPHWSA*	600 BPHWSA, 600 Area Batch Plant HWSA, Hazardous Waste Storage Area (Batch Plant)	Storage Pad (<90 day)	

Appendix C

OPERABLE UNIT Waste Unit Name	LEAD REGULATORY AGENCY Waste Unit Aliases	Unit Type	Status
200-SW-1 **(continued)**			
600 CL	600 CL, 600 Area Central Landfill, Central Landfill, Central Waste Landfill, CWL, Solid Waste Landfill, SWL	Sanitary Landfill	
600 ESHWSA	600 ESHWSA, 600 Area Exploratory Shaft HWSA, 600 Area Exploratory Shaft Hazardous Waste Storage Area, Hazardous Waste Storage Area (Exploratory Shaft)	Storage Pad (<90 day)	
600 NRDWL**	600 NRDWL, 600 Area Nonradioactive Dangerous Waste Landfill, NRDW Landfill, Nonradioactive Dangerous Waste Landfill (Central Landfill), NRDWL	Sanitary Landfill	
600 OCL	600 OCL, 600 Area Original Central Landfill, Original CLF	Sanitary Landfill	
600-38	600-38, Railroad Siding "Susie", 600-25, Susie Junction	Dumping Area	
600-40	600-40, West of West Lake Dumping Area	Dumping Area	
600-51	600-51, Chemical Dump, Pile of White Powder	Dumping Area	
600-70	600-70, Solid Waste Management Unit (SWMU) #2 - Miscellaneous Solid Waste	Dumping Area	
622-1	622-1, Construction and Demolition Debris	Dumping Area	
628-2	628-2, 100 Area Fire Station Burn Pit	Burn Pit	
OCSA	OCSA, Old Central Shop Area, Central Shop Area	Foundation	
UPR-200-E-106	UPR-200-E-106, Contamination at a Burning Ground, UN-200-E-106	Unplanned Release	
UPR-200-W-37	UPR-200-W-37, Contaminated Boxes Found in a Burn Pit	Unplanned Release	
UPR-200-W-70	UPR-200-W-70, Contamination Found at the 200 West Burning Ground	Unplanned Release	
Z PLANT BP	Z PLANT BP, Z Plant Burning Pit	Burn Pit	

Appendix C

OPERABLE UNIT Waste Unit Name	LEAD REGULATORY AGENCY Waste Unit Aliases	Unit Type	Status
200-SW-2	**Ecology**	**RPP**	
218-C-9	218-C-9, Dry Waste No.0C9, 218-C-9 Burial Ground	Burial Ground	
291-C-1	291-C-1, 291-C-1 Stack, 291-C Stack Burial Trench	Burial Ground	
218-E-1	218-E-1, 200 East Dry Waste No. 001	Burial Ground	
218-E-2	218-E-2, 200 East Industrial Waste No. 002, Equipment Burial Ground #2	Burial Ground	
218-E-2A	218-E-2A, Regulated Equipment Storage Site No. 02A, Burial Trench	Burial Ground	
218-E-3	218-E-3, Construction Scrap Pit	Burial Ground	
218-E-4	218-E-4, 200 East Minor Construction No. 4, Equipment Burial Ground #4	Burial Ground	
218-E-5	218-E-5, 200 East Industrial Waste No. 05, Equipment Burial Ground #5	Burial Ground	
218-E-5A	218-E-5A, 200 East Industrial Waste No. 005A, Equipment Burial Ground #5A	Burial Ground	
218-E-7	218-E-7, 200 East 222-B Vaults	Burial Ground	
218-E-8	218-E-8, 200 East Construction Burial Grounds	Burial Ground	
218-E-9	218-E-9, 200 East Regulated Equipment Storage Site No. 009, Burial Vault (HISS)	Burial Ground	
218-E-10**	218-E-10, 200 East Industrial Waste No. 10, Equipment Burial Ground #10	Burial Ground	
218-E-12A	218-E-12A, 200 East Dry Waste No. 12A	Burial Ground	
218-E-12B**	218-E-12B, 200 East Dry Waste No. 12B, 218-E-12B Burial Ground - Trench 94	Burial Ground	
200-W-5	200-W-5, Burial Ground/Burning Pit, U Plant Burning Pit, UPR-200-W-8	Burial Ground	

Appendix C

Listing by Operable Unit. (Sheet 72 of 85)

OPERABLE UNIT Waste Unit Name	LEAD REGULATORY AGENCY Waste Unit Aliases	Unit Type	Status
200-SW-2 **(continued)**			
218-W-1	218-W-1, 200-W Area Dry Waste No. 001, Soilid Waste Burial Ground #1	Burial Ground	
218-W-1A	218-W-1A, 200-W Area Industrial Waste Burial Ground #1, Equipment Burial Ground #1	Burial Ground	
218-W-2	218-W-2, 200-W Area Dry Waste No. 002, Dry Waste Burial Ground No. 2	Burial Ground	
218-W-2A	218-W-2A, Industrial Waste No. 02A, Equipment Burial Ground #2	Burial Ground	
218-W-3	218-W-3, Dry Waste No. 003	Burial Ground	
218-W-3A**	218-W-3A, Dry Waste No. 003A	Burial Ground	
218-W-3AE**	218-W-3AE, Industrial Waste No. 3AE, Dry Waste No. 3AE	Burial Ground	
218-W-4A	218-W-4A, Dry Waste No. 04A	Burial Ground	
218-W-4B**	218-W-4B, Dry Waste No. 04B	Burial Ground	
218-W-4C**	218-W-4C, Dry Waste No. 004C	Burial Ground	
218-W-5**	218-W-5, Dry Waste Burial Ground, Low-Level Radioactive Mixed Waste Burial Grounds	Burial Ground	
218-W-7	218-W-7, 222-S Vault	Burial Ground	
218-W-8	218-W-8, 222-T Vault	Burial Ground	
218-W-9	218-W-9, Dry Waste Burial Ground No. 9, Non-TRU Dry Waste No. 009	Burial Ground	
218-W-11	218-W-11, Regulated Storage Site	Burial Ground	
600-25	600-25, Susie Junction	Dumping Area	
UPR-200-E-23	UPR-200-E-23, Burial Box Collapse at 218-E-10, UPR-200-W-158	Unplanned Release	

Appendix C

OPERABLE UNIT Waste Unit Name	LEAD REGULATORY AGENCY Waste Unit Aliases	Unit Type	Status
200-SW-2 **(continued)**			
UPR-200-E-24	UPR-200-E-24, Contamination Plume from the 218-E-10 Burial Ground, UN-200-E-24	Unplanned Release	
UPR-200-E-30	UPR-200-E-30, Contamination Within 218-E-12A, UN-200-E-30	Unplanned Release	
UPR-200-E-35	UPR-200-E-35, Buried Contaminated Pipe, UN-218-E-1, 218-E-13	Unplanned Release	
UPR-200-E-53	UPR-200-E-53, UN-200-E-53, Contamination at 218-E-1	Unplanned Release	
UPR-200-E-61	UPR-200-E-61, Radioactive Contamination from Railroad Burial Cars, UN-216-E-61, UN-200-E-61	Unplanned Release	
UPR-200-E-95	UPR-200-E-95, UN-216-E-23, UN-200-E-95, Ground Contamination Around RR Spur Between 218-E-2A and 218-E-2	Unplanned Release	
UPR-200-W-8	UPR-200-W-8, UN-200-W-8, 200-W-5, Old Burial/Burning Pit, U-Plant Burning Pit/Burial Ground	Unplanned Release	
UPR-200-W-11	UPR-200-W-11, Burial Ground Fire, UN-200-W-11, UPR-200-W-16	Unplanned Release	
UPR-200-W-16	UPR-200-W-16, Fire at 218-W-1 Burial Ground	Unplanned Release	
UPR-200-W-26	UPR-200-W-26, Contamination Spread During Burial Operation	Unplanned Release	
UPR-200-W-45	UPR-200-W-45, Burial Box Collapse	Unplanned Release	
UPR-200-W-53	UPR-200-W-53, Burial Box Collapse	Unplanned Release	
UPR-200-W-63	UPR-200-W-63, Road Contamination along the South Shoulder of 23rd Street, UN-200-W-63	Unplanned Release	
UPR-200-W-72	UPR-200-W-72, Contamination at 218-W-4A	Unplanned Release	

Appendix C

OPERABLE UNIT Waste Unit Name	LEAD REGULATORY AGENCY Waste Unit Aliases	Unit Type	Status
200-SW-2 **(continued)**			
UPR-200-W-84	UPR-200-W-84, Ground Contamination During Burial Operation	Unplanned Release	
UPR-200-W-134	UPR-200-W-134, Improper Drum Burial	Unplanned Release	
UPR-200-W-137	UPR-200-W-137, 218-W-7, UN-200-W-137	Unplanned Release	
200-TW-1	**EPA**	**CPP**	
216-B-14	216-B-14, 216-BC-1 Crib	Crib	
216-B-15	216-B-15, 216-BC-2 Crib	Crib	
216-B-16	216-B-16, 216-BC-3 Crib	Crib	
216-B-17	216-B-17, 216-BC-4 Crib	Crib	
216-B-18	216-B-18, 216-BC-5 Crib	Crib	
216-B-19	216-B-19, 216-BC-6 Crib	Crib	
216-B-20	216-B-20, 216-BC-7 Trench, 216-B-20 Trench	Trench	
216-B-21	216-B-21, 216-BC-8 Trench, 216-B-21 Trench	Trench	
216-B-22	216-B-22, 216-BC-9 Trench, 216-B-22 Trench	Trench	
216-B-23	216-B-23, 216-BC-10 Trench, 216-B-23 Trench	Trench	
216-B-24	216-B-24, 216-BC-11 Trench, 216-B-24 Trench	Trench	
216-B-25	216-B-25, 216-BC-12 Trench, 216-B-25 Trench	Trench	
216-B-26	216-B-26, 216-BC-13 Trench, 216-B-26 Trench	Trench	
216-B-27	216-B-27, 216-BC-14 Trench, 216-B-27 Trench	Trench	
216-B-28	216-B-28, 216-BC-15 Trench, 216-B-28 Trench	Trench	
216-B-29	216-B-29, 216-BC-16 Trench	Trench	

Appendix C

Listing by Operable Unit. (Sheet 75 of 85)

OPERABLE UNIT Waste Unit Name	LEAD REGULATORY AGENCY Waste Unit Aliases	Unit Type	Status
200-TW-1 **(continued)**			
216-B-30	216-B-30, 216-BC-17 Trench, 216-B-30 Trench	Trench	
216-B-31	216-B-31, 216-BC-18 Trench, 216-B-31 Trench	Trench	
216-B-32	216-B-32, 216-BC-19 Trench, 216-B-32 Trench	Trench	
216-B-33	216-B-33, 216-BC-20 Trench, 216-B-33 Trench	Trench	
216-B-34	216-B-34, 216-BC-21 Trench	Trench	
216-B-42	216-B-42, 241-BX-8 Grave, 216-BX-8 Trench, 216-B-42 Trench	Trench	
216-B-43	216-B-43, 216-BY-1 Crib, 216-BY-1 Cavern	Crib	
216-B-44	216-B-44, 216-BY-2 Crib, 216-BY-2 Cavern	Crib	
216-B-45	216-B-45, 216-BY-3 Crib, 216-BY-3 Cavern	Crib	
216-B-46	216-B-46, 216-BY-4 Crib, 216-BY-4 Cavern	Crib	
216-B-47	216-B-47, 216-BY-5 Crib, 216-BY-5 Cavern	Crib	
216-B-48	216-B-48, 216-BY-6 Crib, 216-BY-6 Cavern	Crib	
216-B-49	216-B-49, 216-BY-7 Crib, 216-BY-7 Cavern	Crib	
216-B-51	216-B-51, 216-BY-9 Crib	French Drain	
216-B-52	216-B-52, 216-B-52 Trench	Trench	
216-BY-201	216-BY-201, 241-BY Flush Tank, 216-BY-47, Supernatant Disposal Flush Tank	Settling Tank	
200-E-14	200-E-14, 216-BC-201 Siphon Tank, 216-B-201	Storage Tank	
216-T-18	216-T-18, Test Crib for 221-U Building, Scavenged TBP Waste, 216-T-17, 241-T-17 Crib	Crib	

Appendix C

Listing by Operable Unit. (Sheet 76 of 85)

OPERABLE UNIT Waste Unit Name	LEAD REGULATORY AGENCY Waste Unit Aliases	Unit Type	Status
200-TW-1 **(continued)**			
216-T-26	216-T-26, 216-TY-1 Cavern, 216-TY-1 Crib, 241-TX-1 Cavern, 216-TX-1 Crib	Crib	
UPR-200-E-9	UPR-200-E-9, Liquid Overflow at 216-BY-201, UN-200-E-9	Unplanned Release	
200-TW-2	**Ecology**	**RPP**	
216-B-5	216-B-5, 241-B-361 Reverse Well, 241-B-361 Dry Well, 241-B-5 Dry Well	Injection/Reverse Well	
216-B-7A&B	216-B-7A&B, 241-B-201 Crib, 216-B-7 Crib, 216-B-7A Sump, 216-B-7B Sump, 241-B-1 and 2 Cribs, 216-B-7A & B	Crib	
216-B-8	216-B-8, 241-B-3 Crib, 216-B-8, 216-B-8TF	Crib	
216-B-9	216-B-9, 241-B-361 Crib, 5-6 Crib and Tile Field, 216-B-361 Crib, 216-B-9TF	Crib	
216-B-35	216-B-35, 241-BX-1 Grave, 216-BX-1 Trench, 216-B-35 Trench	Trench	
216-B-36	216-B-36, 241-BX-2 Grave, 216-BX-2 Trench, 216-B-36 Trench	Trench	
216-B-37	216-B-37, 241-BX-3 Grave, 216-BX-3 Trench, 216-B-37 Trench	Trench	
216-B-38	216-B-38, 241-BX-4 Grave, 216-BX-4 Trench, 216-B-38 Trench	Trench	
216-B-39	216-B-39, 241-BX-5 Grave, 216-BX-5 Trench, 216-B-39 Trench	Trench	
216-B-40	216-B-40, 241-BX-6 Grave, 241-BX-6 Trench, 216-B-40 Trench, 216-BX-6 Trench	Trench	
216-B-41	216-B-41, 241-BX-7 Grave, 216-BX-7 Trench, 216-B-41 Trench	Trench	
241-B-361	241-B-361, 241-B-361 Settling Tank	Settling Tank	
216-T-3	216-T-3, 241-T-361-A Reverse Well, 361-T Reverse Well	Injection/Reverse Well	

Appendix C

OPERABLE UNIT Waste Unit Name	LEAD REGULATORY AGENCY Waste Unit Aliases	Unit Type	Status
200-TW-2 **(continued)**			
216-T-5	216-T-5, 216-T-5 Grave, 216-T-12, 216-T-5 Trench, 241-T-5 Trench	Trench	
216-T-6	216-T-6, 241-T-361 (1&2 Cribs), 216-T-5, 361-T-1&2 Cribs	Crib	
216-T-7	216-T-7, 216-T-7TF, 216-T-7 Tile Field, 241-T-3 Tile Field	Crib	
216-T-14	216-T-14, 241-T-1 Trench, 216-T-1 Grave, 216-T-13	Trench	
216-T-15	216-T-15, 241-T-2 Trench, 241-T-2 Grave, 216-T-14, 216-T-15 Crib	Trench	
216-T-16	216-T-16, 241-T-3 Trench, 241-T-3 Grave, 216-T-15, 216-T-16 Crib	Trench	
216-T-17	216-T-17, 241-T-4 Trench, 216-T-4 Grave, 216-T-16	Trench	
216-T-21	216-T-21, 241-TX-1 Trench, 216-TX-1 Grave, 216-TX-3	Trench	
216-T-22	216-T-22, 241-TX-2 Trench, 216-TX-2 Grave, 216-TX-4	Trench	
216-T-23	216-T-23, 241-TX-3 Trench, 216-TX-3 Grave, 216-TX-5, 241-TX-3 Grave	Trench	
216-T-24	216-T-24, 241-TX-4 Trench, 216-TX-4 Grave, 216-TX-6	Trench	
216-T-25	216-T-25, 241-TX-5 Trench, 216-TX-5 Grave, 216-TX-7	Trench	
216-T-32	216-T-32, 241-T #1 & 2 Cribs, 216-T-6	Crib	
241-T-361	241-T-361, 241-T-361 Settling Tank, 361-T-TANK	Settling Tank	
UPR-200-E-7	UPR-200-E-7, UN-200-E-7, Cave-In Near 219-B-9 (241-B-361 Crib)	Unplanned Release	

Appendix C

Listing by Operable Unit. (Sheet 78 of 85)

OPERABLE UNIT Waste Unit Name	LEAD REGULATORY AGENCY Waste Unit Aliases	Unit Type	Status
200-UR-1	**Ecology**	**RPP**	
200-E-8	200-E-8, 200 East Trench 94 Diesel Spill	Unplanned Release	
200-E-26	200-E-26, Heavy Equipment Storage Area, Diesel Fuel Contaminated Soil	Unplanned Release	
200-E-56	200-E-56, 241-C Waste Line Leak adjacent to 201-C, Waste Line Leak #1	Unplanned Release	
200-E-57	200-E-57, 241-C Waste Line Leak east of 201-C, Waste Line Leak #2	Unplanned Release	
200-W-9	200-W-9, W291 Excavation VCP Contamination	Unplanned Release	
UPR-200-E-2	UPR-200-E-2, UN-200-E-2, Spotty Contamination Around the B and T Plant Stacks	Unplanned Release	
UPR-200-E-10	UPR-200-E-10, Contaminated Purex Railroad Spur, UN-200-E-10	Unplanned Release	
UPR-200-E-11	UPR-200-E-11, Railroad Track Contamination Spread, UN-200-E-11	Unplanned Release	
UPR-200-E-12	UPR-200-E-12, Contaminated Purex Railroad Spur, UN-200-E-12	Unplanned Release	
UPR-200-E-20	UPR-200-E-20, Contaminated Purex Railroad Spur, UN-200-E-20	Unplanned Release	
UPR-200-E-22	UPR-200-E-22, 291-A-1 Stack Fallout Area, UN-200-E-22,	Unplanned Release	
UPR-200-E-28	UPR-200-E-28, Contamination Release Inside the PUREX Exclusion Area, UN-200-E-28	Unplanned Release	
UPR-200-E-33	UPR-200-E-33, Contaminated Purex Railroad tracks, UN-200-E-33	Unplanned Release	
UPR-200-E-36	UPR-200-E-36, Road Contamination North of Semiworks, UN-200-E-36	Unplanned Release	
UPR-200-E-37	UPR-200-E-37, Contamination East of Hot Semi-Works, UN-200-E-37, UN-216-E-37	Unplanned Release	

Appendix C

OPERABLE UNIT Waste Unit Name	LEAD REGULATORY AGENCY Waste Unit Aliases	Unit Type	Status
200-UR-1 **(continued)**			
UPR-200-E-49	UPR-200-E-49, Roadway Contamination, UN-200-E-49	Unplanned Release	
UPR-200-E-50	UPR-200-E-50, Soil Contamination at the Overground Equipment Storage Yard, UN-200-E-50	Unplanned Release	
UPR-200-E-52	UPR-200-E-52, UN-200-E-52, Contamination Spread Outside the North Side of 221-B	Unplanned Release	
UPR-200-E-54	UPR-200-E-54, UN-200-E-54, Contamination Outside 225-B Doorway	Unplanned Release	
UPR-200-E-55	UPR-200-E-55, UN-200-E-55, Contamination Spread South of B Plant	Unplanned Release	
UPR-200-E-58	UPR-200-E-58, Contaminated Tumbleweeds found on dirt road, UN-200-E-58	Unplanned Release	
UPR-200-E-60	UPR-200-E-60, UN-216-E-60, Radioactively Contaminated Dirt Spill, UN-200-E-60	Unplanned Release	
UPR-200-E-62	UPR-200-E-62, Transportation spill near 200-E Burning Ground, UN-216-E-62, UN-200-E-62,	Unplanned Release	
UPR-200-E-63	UPR-200-E-63, Radioactively Contaminated Tumbleweeds, UN-216-E-63, UN-200-E-63	Unplanned Release	
UPR-200-E-69	UPR-200-E-69, UN-216-E-69, Railroad Car Flush Water Radioactive Spill, UN-200-E-69	Unplanned Release	
UPR-200-E-83	UPR-200-E-83, UN-216-E-11, BC Cribs Controlled Area, UN-200-E-83	Unplanned Release	
UPR-200-E-88	UPR-200-E-88, TC-4 Spur Contaminated Railroad Track, UN-216-E-88, UN-216-E-16, UN-200-E-88. Ground Contamination Around the Western Purex Railroad Spur	Unplanned Release	
UPR-200-E-89	UPR-200-E-89, UN-216-E-17, UN-200-E-89, Contamination Migration to the North, East & West of BX-BY Tank Farms	Unplanned Release	

Appendix C

OPERABLE UNIT Waste Unit Name	LEAD REGULATORY AGENCY Waste Unit Aliases	Unit Type	Status
200-UR-1 **(continued)**			
UPR-200-E-90	UPR-200-E-90, UN-216-E-18, Ground Contamination around B Plant Sand Filter, UN-216-E-90, Radioactive Spill Near 221-B Building, UN-200-E-90	Unplanned Release	
UPR-200-E-92	UPR-200-E-92, 216-E-20, UN-216-E-20, UN-216-20, Ground Contamination Outside 200 East Fence, UN-200-E-92, UN-216-E-92	Unplanned Release	
UPR-200-E-93	UPR-200-E-93, UN-216-E-21 Ground contamination along 200 East Area fence	Unplanned Release	
UPR-200-E-97	UPR-200-E-97, PUREX Railroad Tunnel Contamination, UN-216-E-25, UN-200-E-97	Unplanned Release	
UPR-200-E-98	UPR-200-E-98, UN-216-E-26, Ground Contamination East of C Plant, UN-200-E-98	Unplanned Release	
UPR-200-E-103	UPR-200-E-103, UN-200-E-103, BCS Line Leak South of R-17 at 221-B	Unplanned Release	
UPR-200-E-112	UPR-200-E-112, UN-200-E-112, Contaminated Railroad Track from B-Plant to the Burial Ground	Unplanned Release	
UPR-200-E-114	UPR-200-E-114, 202-A Valve Pit, UN-200-E-114	Unplanned Release	
UPR-200-E-140	UPR-200-E-140, PCB Oil Spill at 211-B Bulk Chemical Storage Area, UN-200-E-140	Unplanned Release	
UPR-200-E-141	UPR-200-E-141, 2718-E Building Uranyl Nitrate Spill to Ground, UN-200-E-141	Unplanned Release	
UPR-200-E-142	UPR-200-E-142, 202-A Diesel Fuel Spill, UN-200-E-142	Unplanned Release	
UPR-200-E-143	UPR-200-E-143, Contamination Adjacent to 244-AR Lift Station, UN-216-E-43	Unplanned Release	
UPR-200-E-144	UPR-200-E-144, Soil Contamination North of 241-B, UN-216-E-44	Unplanned Release	

Appendix C

Listing by Operable Unit. (Sheet 81 of 85)

OPERABLE UNIT Waste Unit Name	LEAD REGULATORY AGENCY Waste Unit Aliases	Unit Type	Status
200-UR-1 **(continued)**			
UPR-200-N-1	UPR-200-N-1, Unplanned release near 212-R railroad spur	Unplanned Release	
UPR-200-N-2	UPR-200-N-2, 200-N-2, Unplanned release near Well Pumphouse No. 2	Unplanned Release	
UPR-200-W-3	UPR-200-W-3, Railroad Contamination, UN-200-W-3	Unplanned Release	
UPR-200-W-4	UPR-200-W-4, Railroad Contamination, UN-200-W-4	Unplanned Release	
UPR-200-W-14	UPR-200-W-14, Waste Line Leak at 242-T Evaporator, UN-200-W-14	Unplanned Release	
UPR-200-W-23	UPR-200-W-23, Waste Box Fire at 234-5Z, UN-200-W-23	Unplanned Release	
UPR-200-W-39	UPR-200-W-39, UN-200-W-39, 224-U Buried Contamination	Unplanned Release	
UPR-200-W-41	UPR-200-W-41, Railroad Contamination, UN-200-W-41	Unplanned Release	
UPR-200-W-42	UPR-200-W-42, Contamination found at 2706-S, UN-200-W-42	Unplanned Release	
UPR-200-W-43	UPR-200-W-43, Contaminated Blacktop East of 233-S, UN-200-W-43	Unplanned Release	
UPR-200-W-44	UPR-200-W-44, Railroad Track Contamination, UN-200-W-44	Unplanned Release	
UPR-200-W-46	UPR-200-W-46, Contaminated Railroad Track, UN-200-W-46	Unplanned Release	
UPR-200-W-48	UPR-200-W-48, Contaminated Railroad Track near 221-U, UN-200-W-48	Unplanned Release	
UPR-200-W-51	UPR-200-W-51, Release from 241-S Diversion Box, UN-200-W-51, UPR-200-W-52	Unplanned Release	
UPR-200-W-52	UPR-200-W-52, Release from 241-S Diversion Box, UN-200-W-52	Unplanned Release	

Appendix C

OPERABLE UNIT Waste Unit Name	LEAD REGULATORY AGENCY Waste Unit Aliases	Unit Type	Status
200-UR-1 **(continued)**			
UPR-200-W-55	UPR-200-W-55, Uranium Powder Spill at 224-U, UN-200-W-55	Unplanned Release	
UPR-200-W-56	UPR-200-W-56, Contamination at the REDOX Column Carrier Trench, UN-200-W-56	Unplanned Release	
UPR-200-W-57	UPR-200-W-57, UPR-200-E-120 (misassignment of E-W area number), UN-200-W-57	Unplanned Release	
UPR-200-W-58	UPR-200-W-58, Railroad Track Contamination, UN-200-W-58	Unplanned Release	
UPR-200-W-60	UPR-200-W-60, Railroad Contamination, UN-200-W-60	Unplanned Release	
UPR-200-W-61	UPR-200-W-61, REDOX Ground Contamination, UN-200-W-61	Unplanned Release	
UPR-200-W-65	UPR-200-W-65, Contamination in the T-Plant Railroad Cut, UN-200-W-65	Unplanned Release	
UPR-200-W-67	UPR-200-W-67, Contamination near 2706-T, UN-200-W-67	Unplanned Release	
UPR-200-W-68	UPR-200-W-68, Road Contamination, UN-200-W-68	Unplanned Release	
UPR-200-W-69	UPR-200-W-69, Railroad Contamination, UN-200-W-69	Unplanned Release	
UPR-200-W-73	UPR-200-W-73, Contaminated Railroad Track at 221-T, UN-200-W-73	Unplanned Release	
UPR-200-W-74	UPR-200-W-74, Overground Line Leak at 241-Z, UN-200-W-74	Unplanned Release	
UPR-200-W-75	UPR-200-W-75, Contamination Spread at 241-Z, UN-200-W-75	Unplanned Release	
UPR-200-W-77	UPR-200-W-77, Contaminated Coyote Feces, UN-200-W-77	Unplanned Release	
UPR-200-W-78	UPR-200-W-78, UO3 Powder Spill at 224-U, UN-200-W-78	Unplanned Release	

Appendix C

OPERABLE UNIT Waste Unit Name	LEAD REGULATORY AGENCY Waste Unit Aliases	Unit Type	Status
200-UR-1 **(continued)**			
UPR-200-W-83	UPR-200-W-83, Radioactive Spill Near 204-S Radiation Zone, UN-216-W-82, UN-200-W-83	Unplanned Release	
UPR-200-W-85	UPR-200-W-85, Radioactive Spill from Multipurpose Transfer Box, UN-216-W-85, UN-200-W-85	Unplanned Release	
UPR-200-W-86	UPR-200-W-86, Contaminated Pigeon Feces at 221-U and 204-S, UN-200-W-86, UN-216-W-86	Unplanned Release	
UPR-200-W-87	UPR-200-W-87, UN-216-W-87, Radioactive Spill from Filter Housing, UN-200-W-87	Unplanned Release	
UPR-200-W-88	UPR-200-W-88, Radioactive Spill from UNH Trailer, UN-216-W-88, UN-200-W-88	Unplanned Release	
UPR-200-W-89	UPR-200-W-89, Radioactive Contamination Southwest of 236-Z Building, UN-216-W-89, UN-200-W-89	Unplanned Release	
UPR-200-W-90	UPR-200-W-90, Radioactive Contamination South of 236-Z Building, UN-216-N-90, UN-200-W-90	Unplanned Release	
UPR-200-W-91	UPR-200-W-91, Radioactive Contamination near 234-5Z Building, UN-216-W-91, UN-200-W-91	Unplanned Release	
UPR-200-W-96	UPR-200-W-96, UN-216-W-4, 233-S Floor Overflow, 233-SA Floor Overflow	Unplanned Release	
UPR-200-W-99	UPR-200-W-99, UN-216-W-7, 153-TX Diversion Box Contamination Spread, UN-200-W-99	Unplanned Release	
UPR-200-W-101	UPR-200-W-101, UN-216-W-9, 221-U Acid Spill R-1 through R-5, UN-200-W-101	Unplanned Release	
UPR-200-W-116	UPR-200-W-116, UN-216-W-26, Ground Contamination North of 202-S, UN-200-W-116	Unplanned Release	

Appendix C

Listing by Operable Unit. (Sheet 84 of 85)

OPERABLE UNIT Waste Unit Name	LEAD REGULATORY AGENCY Waste Unit Aliases	Unit Type	Status
200-UR-1 **(continued)**			
UPR-200-W-117	UPR-200-W-117, Railroad Track Contamination, UN-216-W-27, UN-200-W-117	Unplanned Release	
UPR-200-W-118	UPR-200-W-118, Contamination at 211-U, UN-216-W-28, UN-200-W-118	Unplanned Release	
UPR-200-W-123	UPR-200-W-123, 204-S Unloading Facility Frozen Discharge Line, UN-200-W-123	Unplanned Release	
UPR-200-W-127	UPR-200-W-127, Liquid Release from 242-S Evaporator to the Ground, UN-200-W-127	Unplanned Release	
UPR-200-W-159	UPR-200-W-159, Caustic Spill at Plutonium Finishing Plant, UN-200-W-159	Unplanned Release	
UPR-200-W-162	UPR-200-W-162, Contaminated Area on East Side of 221-U, UN-216-W-37	Unplanned Release	
UPR-200-W-165	UPR-200-W-165, Contamination Area East of 241-S, UN-216-W-30	Unplanned Release	
UPR-200-W-166	UPR-200-W-166, Contamination Migration from 241-T Tank Farm, UN-216-W-31	Unplanned Release	
UPR-600-12	UPR-600-12, UN-600-12, UNH Spill to Route 4S	Unplanned Release	
UPR-600-21	UPR-600-21, Contamination found Northeast of 200 East Area, UN-216-E-31	Unplanned Release	

Appendix C

Listing by Operable Unit. (Sheet 85 of 85)

Groundwater Operable Units

Operable Unit	Lead Regulatory Agency
100-BC-5 (GW O.U.)	EPA
100-FR-3 (GW O.U.)	EPA
100-HR-3 (GW O.U.)	Ecology
100-KR-4 (GW O.U.)	EPA
100-NR-2 (GW O.U.)	Ecology
200-BP-5 (GW O.U.)	EPA
200-PO-1 (GW O.U.)	Ecology
200-UP-1 (GW O.U.)	Ecology
200-ZP-1 (GW O.U.)	EPA
300-FF-5 (GW O.U.)	EPA

* Active waste management units where a hazardous substance has been potentially released or a substantial threat of a release of a hazardous substance exists.
**Treatment Storage and Disposal (TSD) units where closure and permitting activities are to be coordinated with past practice investigation and remediation activities.
† Interim Action Record of Decision for the 100-BC-1, 100-BC-2, 100-DR-1, 100-DR-2, 100-FR-1, 100-FR-2, 100-HR-1, 100-HR-2, 100-KR-1, 100-KR-2, 100-IU-2, 100-IU-6, and 200-CW-3 Operable Units (1999)

Table D. Major and Interim Milestones and Target Dates

Number	Milestone	Due Date
M-013-00N LEAD AGENCY: DUAL (see note)	SUBMIT 1 200 NPL RI/FS (RFI/CMS) WORK PLAN FOR THE 200-UR-1, UNPLANNED RELEASES. Note:See operable unit LRA designation listing in Appendix C.	12/31/2003
M-013-00O LEAD AGENCY: DUAL (see note)	SUBMIT 1 200 NPL RI/FS (RFI/CMS) WORK PLAN FOR THE 200-SW-2, RADIOACTIVE LANDFILLS AND DUMPS OU. INCLUDES WASTE SITES IN THE 200-SW-1, NON-RADIOACTIVE LANDFILLS AND DUMPS OU. Note:See operable unit LRA designation listing in Appendix C.	12/31/2004
M-015-00	COMPLETE THE RI/FS (OR RFI/CMS) PROCESS FOR ALL OPERABLE UNITS.	12/31/2008
M-015-00C LEAD AGENCY: DUAL (see note)	COMPLETE ALL 200 AREA NON-TANK FARM OPERABLE UNIT PRE-ROD SITE INVESTIGATIONS UNDER APPROVED WORK PLAN SCHEDULES. Note:See operable unit LRA designation listing in Appendix C.	12/31/2008
M-015-39A	COMPLETE CHEMICAL SEWER GROUP FIELD WORK THROUGH SAMPLE COLLECTION AND ANALYSIS.	09/30/2003
M-015-39B	SUBMIT DRAFT A 200-CS-1 CHEMICAL SEWER GROUP RI REPORT.	05/31/2004
M-015-39C	SUBMIT DRAFT A 200-CS-1 CHEMICAL SEWER GROUP FS AND SUBMIT DRAFT A 200-CS-1 CHEMICAL SEWER GROUP PROPOSED PLAN/PROPOSED RCRA PERMIT MODIFICATION.	11/30/2005
M-015-40B	SUBMIT DRAFT A 200-CW-5 U POND/Z-DITCHES COOLING WATER GROUP RI REPORT INCLUDING THE PAST PRACTICE WASTE SITES IN THE 200-CW-2 S-PONDS/DITCHES COOLING WATER GROUP, THE 200-CW-4 T-PONDS/DITCHES COOLING WATER GROUP, AND THE 200-SC-1 STEAM CONDENSATE GROUP.	05/31/2003
M-015-40C	SUBMIT DRAFT A 200-CW-5 U POND/Z DITCHES COOLING WATER GROUP FS AND SUBMIT DRAFT A 200-CW-5 U POND/Z DITCHES COOLING WATER GROUP PROPOSED PLAN INCLUDING THE PAST PRACTICE WASTE SITES IN THE 200-CW-2 S-PONDS/DITCHES COOLING WATER GROUP, THE 200-CW-4 T-PONDS/DITCHES COOLING WATER GROUP, AND THE 200-SC-1 STEAM CONDENSATE GROUP.	10/31/2004
M-015-41C	SUBMIT THE DRAFT A 200-TW-1 OU AND 200-TW-2 OU FS AND DRAFT A PROPOSED PLAN TO EPA AND ECOLOGY.AND INCLUDES THE PAST PRACTICE WASTE SITES IN THE 200-PW-5 FISSION PRODUCT-RICH PROCESS WASTE GROUP. THE WASTE SITE ASSOCIATED WITH THE HANFORD PROTOTYPE BARRIER WILL BE ADDRESSED BY THE TW-1/TW-2 PROPOSED PLAN.	03/31/2004
M-015-43B	SUBMIT 200-PW-2 OU RI REPORT INCLUDING THE PAST PRACTICE WASTE SITES IN THE 200-PW-4 GENERAL PROCESS WASTE GROUP.	06/30/2004
M-015-43C	SUBMIT 200-PW-2 OU FEASIBILITY STUDY AND PROPOSED PLAN/PROPOSED RCRA PERMIT MODIFICATION INCLUDING THE PAST PRACTICE WASTE SITES IN THE 200-PW-4 GENERAL PROCESS WASTE GROUP.	12/31/2005

Table D. Major and Interim Milestones and Target Dates

Number	Milestone	Due Date
M-015-44A	SUBMIT 200-MW-1 OU REMEDIAL INVESTIGATION REPORT.	12/31/2005
M-015-44B	SUBMIT 200-MW-1 OU FEASIBILITY STUDY AND PROPOSED PLAN.	12/31/2006
M-015-46A	SUBMIT 200 AREA CHEMICAL LABORATORY WASTE OUs REMEDIAL INVESTIGATION REPORT, INCLUDING THE PAST PRACTICE WASTE SITES IN THE 200-LW-1 AND 200-LW-2 200 AREA CHEMICAL LABORATORY GROUPS.	10/31/2005
M-015-46B	SUBMIT 200 AREA CHEMICAL LABORATORY WASTE OUs FEASIBILITY STUDY AND PROPOSED PLAN/PROPOSED PERMIT MODIFICATION, INCLUDING THE PAST PRACTICE WASTE SITES IN THE 200-LW-1 AND 200-LW-2 200 AREA CHEMICAL LABORATORY GROUPS.	09/30/2006
M-015-47	SUBMIT A PROPOSED PLAN TO EPA AND/OR ECOLOGY TO CONDUCT REMEDIAL ACTION(S) FOR SOURCE CONTROL AT HIGH-RISK WASTE SITE(S) WHICH INCLUDES AN ENGINEERING EVALUATION OF AN ENGINEERED SURFACE BARRIER.	06/30/2003
M-016-00 LEAD AGENCY: DUAL (see note)	COMPLETE REMEDIAL ACTIONS FOR ALL NON-TANK FARM OPERABLE UNITS. Note:See operable unit LRA designation listing in Appendix C.	09/30/2024
M-016-00A	COMPLETE ALL INTERIM RESPONSE ACTIONS FOR THE 100 AREAS. COMPLETION OF INTERIM RESPONSE ACTIONS IS DEFINED AS THE COMPLETION OF THE INTERIM ROD OR ACTION MEMORANDUM REQUIREMENTS IN ACCORDANCE WITH AN APPROVED RD/RA WORK PLAN OR REMOVAL ACTION WORK PLAN AND OBTAIN EPA AND/OR ECOLOGY APPROVAL OF THE APPROPRIATE PROJECT CLOSEOUT DOCUMENTS.	12/31/2012
M-016-00B	COMPLETE ALL INTERIM 300 AREA REMEDIAL ACTIONS TO INCLUDE CONFIRMATORY SAMPLING OF ALL CANDIDATE SITES LISTED IN THE 300-FF-2 ROD. COMPLETION OF ALL INTERIM REMEDIAL ACTIONS IS DEFINED AS THE COMPLETION OF THE INTERIM ROD REQUIREMENTS IN ACCORDANCE WITH AN APPROVED RD/RA WORK PLAN AND OBTAIN EPA AND/OR ECOLOGY APPROVAL OF THE APPROPRIATE PROJECT CLOSEOUT DOCUMENTS. COMPLETION OF CONFIRMATORY SAMPLING IS DEFINED AS THE COMPLETION OF THE SAMPLING NECESSARY TO DETERMINE WHETHER OR NOT THE WASTE SITE MEETS CRITERIA FOR CLEANUP OR CAN BE CLOSED OUT FROM THE WASTE INFORMATION DATA SYSTEM (WIDS) AS DEFINED IN THE RD/RA WORK PLAN. THE DISPOSITION OF IMPEDING SURPLUS FACILITIES WILL BE PERFORMED IN ACCORDANCE WITH MILESTONE M-094-00.	09/30/2018
M-016-03H	COMPLETE REMEDIATION OF THE WASTE SITES IN THE 300-FF-1 OPERABLE UNIT TO INCLUDE EXCAVATION, VERIFICATION, AND REGRADING, INCLUDING THE 618-4 BURIAL GROUND IN ACCORDANCE WITH AN APPROVED REMEDIAL DESIGN REPORT/REMEDIAL ACTION WORK PLAN.	06/30/2004

Table D. Major and Interim Milestones and Target Dates

Number	Milestone	Due Date
M-016-03I	COMPLETE TREATMENT OF DRUMMED WASTE FROM THE 618-4 BURIAL GROUND IN ACCORDANCE WITH AN APPROVED REMEDIAL DESIGN REPORT/REMEDIAL ACTION WORK PLAN.	to be determined
M-016-13B	COMPLETE REMEDIATION AND BACKFILL OF 16 LIQUID WASTE SITES AND PROCESS EFFLUENT PIPELINES IN THE 100-FR-1 & 100-FR-2 OPERABLE UNITS AS DEFINED IN THE REMEDIAL DESIGN REPORT/REMEDIAL ACTION WORK PLAN FOR THE 100 AREA.	10/29/2004
M-016-26E	COMPLETE EXCAVATION AND REMOVAL OF 100-B/C PROCESS EFFLUENT PIPELINES.	09/30/2004
M-016-26F	COMPLETE BACKFILL OF 100 B/C PROCESS EFFLUENT PIPELINE EXCAVATIONS.	02/28/2005
M-016-27C	COMPLETE 100-HR-3 PHASE III, ISRM BARRIER EMPLACEMENT, PLANNING, WELL INSTALLATION, AND BARRIER EMPLACEMENT.	06/30/2003
M-016-45	COMPLETE THE INTERIM REMEDIAL ACTION FOR THE 100 B/C AREA.	12/31/2006
M-016-46	INITIATE REMEDIAL ACTIONS FOR THE REMAINING WASTE SITES FOR THE 100 D AREA.	07/31/2006
M-016-47	COMPLETE THE INTERIM REMEDIAL ACTIONS FOR THE 100 D AREA.	12/31/2011
M-016-48	INITIATE REMEDIAL ACTIONS FOR THE REMAINING WASTES SITES FOR THE 100 F AREA.	07/31/2005
M-016-49	COMPLETE THE INTERIM REMEDIAL ACTIONS FOR THE 100 F AREA.	12/31/2008
M-016-50	INITIATE REMEDIAL ACTIONS FOR THE REMAINING WASTES SITES FOR THE 100 H AREA.	07/31/2007
M-016-51	COMPLETE THE INTERIM REMEDIAL ACTIONS FOR THE 100 H AREA.	12/31/2010
M-016-52	INITIATE RESPONSE ACTIONS FOR THE REMAINING WASTES SITES FOR THE 100 K AREA.	07/31/2009
M-016-53	COMPLETE THE INTERIM RESPONSE ACTIONS FOR THE 100 K AREA.	12/31/2012
M-016-54	INITIATE RESPONSE ACTIONS FOR THE REMAINING WASTES SITES FOR THE 100 N AREA.	07/31/2008
M-016-55	COMPLETE THE INTERIM RESPONSE ACTIONS FOR THE 100 N AREA.	12/31/2012
M-016-56	COMPLETE THE INTERIM REMEDIAL ACTIONS FOR 100-IU-2 AND 100-IU-6.	12/31/2008
M-016-60	COMPLETE INTERIM REMEDIAL ACTIONS FOR AT LEAST 3 OF THE FOLLOWING HIGH ENVIRONMENTAL PRIORITY 300-FF-2 WASTE SITES (316-4, 618-2, 618-3, 618-5 AND 618-7) AND COMPLETE CONFIRMATORY SAMPLING OF 300-FF-2 CANDIDATE SITES 300-7 AND 300-9.	12/31/2006

Table D. Major and Interim Milestones and Target Dates

Number	Milestone	Due Date
M-016-61	COMPLETE INTERIM REMEDIAL ACTIONS FOR THE REMAINING HIGH ENVIRONMENTAL PRIORITY 300-FF-2 WASTE SITES (316-4, 618-2, 618-3, 618-5 AND 618-7).	12/31/2008
M-016-62	COMPLETE INTERIM REMEDIAL ACTIONS FOR THE FOLLOWING 300-FF-2 WASTE SITES: 300-8, 300-18, 300-VTS, 316-4, 600-47, 600-259, 618-2, 618-3, 618-5, 618-7, 618-8, AND 618-13 (SEE TABLE 1 IN TPA CHANGE REQUEST M-16-01-06).	12/31/2012
M-016-63	SUBMIT A SCHEDULE AND TRI-PARTY AGREEMENT MILESTONES TO COMPLETE INTERIM REMEDIAL ACTIONS FOR THE FOLLOWING 300-FF-2 WASTE SITES (300-259, 303-M SA, 303-M UOF, UPR 300-46, UPR 300-17, AND 618-1) AND CONFIRMATORY SAMPLING OF THE FOLLOWING 300-FF-2 CANDIDATE SITES (300-109, 300-110, AND 333 ESHWSA) (SEE TABLE 2 IN TPA CHANGE REQUEST M-016-01-06)THE MILESTONE DELIVERABLE SHALL INCLUDE AT LEAST: 1) A SCHEDULE FOR SUBMITTALS OF ANY DOCUMENTS REQUIRING EPA AND/OR ECOLOGY APPROVAL (E.G., REMEDIAL DESIGN/REMEDIAL ACTION WORK PLANS, ETC.); 2) A SCHEDULE THAT DEFINES DATES FOR INITIATING AND COMPLETING INTERIM REMEDIAL ACTIONS AT WASTE SITES AND IMPEDING FACILITIES; 3) A TRI-PARTY AGREEMENT CHANGE PACKAGE THAT INCLUDES MILESTONES FOR GROUPS OF WASTE SITES AND IMPEDING FACILITIES THAT WILL ENSURE COMPLETION OF M-016-00B; AND 4) AN EVALUATION OF OUTYEAR TRI-PARTY AGREEMENT MILESTONES FOR THE 300 AREA TO SEE IF THEY CAN BE ACCELERATED. IT IS EXPECTED THAT SCHEDULES WILL BE ALIGNED WITH THE ASSOCIATED SCHEDULES REQUIRED BY M-094-01.	11/30/2003
M-016-64	COMPLETE INTERIM REMEDIAL ACTIONS FOR THE FOLLOWING 300-FF-2 WASTE SITES: (300-259, 303-M SA, 303-M UOF, UPR 300-46, UPR 300-17, AND 618-1) (SEE TABLE 2 IN TPA CHANGE REQUEST M-016-01-06).	09/30/2010
M-016-65	SUBMIT A SCHEDULE AND TRI-PARTY AGREEMENT MILESTONES TO COMPLETE INTERIM REMEDIAL ACTIONS FOR THE 300-FF-2 WASTE SITES AND CONFIRMATORY SAMPLING OF 300-FF-2 CANDIDATE SITES INSIDE THE FENCE. THE MILESTONE DELIVERABLE SHALL INCLUDE AT LEAST: 1) A SCHEDULE FOR SUBMITTALS OF ANY DOCUMENTS REQUIRING EPA AND/OR ECOLOGY APPROVAL (E.G., REMEDIAL DESIGN/REMEDIAL ACTION WORK PLANS, ETC.); 2) A SCHEDULE THAT DEFINES DATES FOR INITIATING AND COMPLETING INTERIM REMEDIAL ACTIONS AT WASTE SITES AND ASSOCIATED IMPEDING SURPLUS FACILITIES; 3) A TRI-PARTY AGREEMENT CHANGE PACKAGE THAT INCLUDES MILESTONES FOR GROUPS OF WASTE SITES AND IMPEDING FACILITIES THAT WILL ENSURE COMPLETION OF M-016-00B; AND, 4) A TRI-PARTY AGREEMENT DISPOSITION PATH FOR ANY REMAINING 300-FF-2 WASTE SITES. IT IS EXPECTED THAT SCHEDULES WILL BE ALIGNED WITH THE ASSOCIATED SCHEDULES REQUIRED BY M-094-04.	08/30/2005
M-016-66	INITIATE INTERMEDIATE DESIGN AND AUTHORIZATION SAFETY	09/30/2004

Table D. Major and Interim Milestones and Target Dates

Number	Milestone	Due Date
	ANALYSIS FOR REMEDIAL ACTIONS AT THE 618-10 AND 618-11 BURIAL GROUNDS. THE INTERMEDIATE DESIGN SHALL INCLUDE, AT A MINIMUM, A DESIGN BASIS REPORT, REMEDIATION APPROACH (I.E., PROCESS DEFINITION), SITE LAY OUT, EVALUATION OF INFRASTRUCTURE REQUIREMENTS (I.E., M-091 AND WASTE ISOLATION PILOT PLANT [WIPP] INTEGRATION PLANNING), AND PLANNING FOR TREATABILITY TESTS. INTERMEDIATE DESIGN ACTIVITIES WILL UTILIZE WIPP REMOTE HANDLED TRANSURANIC (RH-TRU) AND M-91 WASTE ACCEPTANCE CRITERIA, AN EVALUATION OF RH TRU TECHNOLOGY DEVELOPMENT EFFORTS AND AN EVALUATION OF LESSONS LEARNED FROM OTHER ONGOING DOE COMPLEX TRU EXCAVATION EFFORTS. THE AUTHORIZATION SAFETY ANALYSIS SHALL INCLUDE, AT A MINIMUM, ANY APPROVALS REQUIRED TO SUPPORT ADDITIONAL SITE CHARACTERIZATION WITHIN 618-10 AND 618-11 BURIAL GROUNDS FOR DESIGN PURPOSES AND ANY TREATABILITY INVESTIGATIONS.	
M-016-67	SUBMIT AN INTERMEDIATE DESIGN REPORT, A REMEDIATION SCHEDULE AND A TREATABILITY INVESTIGATION WORK PLAN FOR REMEDIAL ACTIONS AT THE 618-10 AND 618-11 BURIAL GROUNDS. THE INTERMEDIATE DESIGN REPORT SHOULD REPRESENT A 60% COMPLETE DESIGN REPORT. THE REMEDIATION SCHEDULE MUST IDENTIFY: 1) DATES FOR INITIATING AND COMPLETING INTERIM REMEDIAL ACTIONS AT WASTE SITES; AND 2) ANY DOCUMENTS REQUIRING EPA AND/OR ECOLOGY APPROVAL PRIOR TO INITIATING REMEDIAL ACTIONS (E.G., RD/RA WORK PLANS, ETC.). THE TREATABILITY INVESTIGATION WORK PLAN MUST BE CONSISTENT WITH WIPP RH-TRU AND M-91 WASTE ACCEPTANCE CRITERIA AND WILL BE SUBMITTED AS A TRI-PARTY AGREEMENT PRIMARY DOCUMENT.	03/31/2007
M-020-00 LEAD AGENCY: ECOLOGY	SUBMIT PART B PERMIT APPLICATIONS OR CLOSURE/POSTCLOSURE PLANS FOR ALL RCRA TSD UNITS. PERMIT APPLICATIONS, CLOSURE, AND POST-CLOSURE PLANS WILL BE SUBMITTED TO ECOLOGY FOR APPROVAL. INDIVIDUAL UNIT SUBMITTALS (ENFORCEABLE AS INTERIM MILESTONES) WILL OCCUR AS SHOWN IN APPENDIX D. PRECLOSURE WORK PLANS WILL BE PREPARED AND SUBMITTED FOR APPROVAL FOR TSD UNITS WHICH WILL ACHIEVE CLOSURE IN CONJUNCTION WITH THE DISPOSITION OF THE FACILITY IN WHICH THEY ARE CONTAINED. COMPLIANCE WITH THE WORK SCHEDULES SET FORTH IN THIS M-20 SERIES IS DEFINED AS THE PERFORMANCE OF SUFFICIENT WORK TO ASSURE WITH REASONABLE CERTAINTY THAT DOE WILL ACCOMPLISH SERIES M-20 MAJOR AND INTERIM MILESTONE REQUIREMENTS. DOE INTERNAL WORK SCHEDULES (E.G., DOE APPROVED SCHEDULE BASELINES) AND ASSOCIATED WORK DIRECTIVES AND AUTHORIZATIONS SHALL BE CONSISTENT WITH THE REQUIREMENTS OF THIS AGREEMENT. MODIFICATION OF DOE CONTRACTOR BASELINE(S) AND ISSUANCE OF ASSOCIATED DOE WORK DIRECTIVES AND/OR AUTHORIZATIONS THAT ARE	12/31/2008

Table D. Major and Interim Milestones and Target Dates

Number	Milestone	Due Date
	NOT CONSISTENT WITH AGREEMENT REQUIREMENTS SHALL NOT BE FINALIZED PRIOR TO APPROVAL OF AN AGREEMENT CHANGE REQUEST SUBMITTED PURSUANT TO AGREEMENT ACTION PLAN SECTION 12.0.	
M-020-00A	SUBMIT PART B PERMIT APPLICATIONS OR CLOSURE/POST CLOSURE PLANS FOR ALL RCRA TSD UNITS EXCEPT 216-A-10, 216-A-36B, 216-A-37-1, 207-A SOUTH RETENTION BASIN, 216-S-10 POND, 216-S-10 DITCH, 241-CX-70, 241-CX-71, AND 241-CX-72.	02/28/2004
M-020-00B	SUBMIT CLOSURE/POST-CLOSURE PLANS FOR 216-A-10, 216-A-36B, 216-A-37-1, 207-A SOUTH RETENTION BASIN, 216-S-10 POND, 216-S-10 DITCH, 241-CX-70, 241-CX-71, AND 241-CX-72.	12/31/2008
M-20-29B	Submit sodium storage facility and sodium reaction facility closure plan or request for procedural closure to Ecology as defined in Agreement section 6.3.3. FFTF constructed the sodium storage facility (SSF) on the basis of providing RCRA and WAC 173-303 compliant storage for the sodium in the event it was determined not to be product material. The sodium reaction facility (SRF) was also included in the permit request, even though construction of the SRF was not planned at that time. The FFTF, Hallam and SRE sodium will be used as a product feedstock in the pretreatment at the Waste Treatment Plant (WTP). The sodium will be stored as product material in the sodium storage facility. Therefore, a request for procedural closure as defined in section 6.3.3 of the Agreement will be submitted for the SSF and SRF units.	06/30/2003
M-020-33	SUBMIT 216-A-10 CRIB, 216-A-36B CRIB, 216-A-37-1 CRIB, AND 207-A SOUTH RETENTION BASIN CLOSURE/POST CLOSURE PLANS TO ECOLOGY IN COORDINATION WITH THE FEASIBILITY STUDY FOR THE 200-PW-2 URANIUM-RICH PROCESS WASTE GROUP OPERABLE UNIT (TO BE COORDINATED UNDER M-15-43C).	12/31/2005
M-020-39	SUBMIT 216-S-10 POND AND DITCH CLOSURE/POSTCLOSURE PLAN TO ECOLOGY IN COORDINATION WITH THE FEASIBILITY STUDY FOR THE 200-CS-1 CHEMICAL SEWER GROUP OPERABLE UNIT (TO BE COORDINATED UNDER M-15-39C).	11/30/2005
M-020-54	SUBMIT 241-CX-70 STORAGE TANK, 241-CX-71 NEUTRALIZATION TANK, 241-CX-72 STORAGE TANK CLOSURE/POST CLOSURE PLAN TO ECOLOGY IN COORDINATION WITH THE 200-IS-1 TANKS/LINES/PITS/BOXES OPERABLE UNIT WORK PLAN FEASIBILITY STUDY SCHEDULED UNDER M-13-00M.	12/31/2008
M-020-56	SUBMIT CANISTER STORAGE FACILITY PART B DANGEROUS WASTE PERMIT APPLICATION TO ECOLOGY.	06/30/2003
M-020-57	SUBMIT ILAW DISPOSAL FACILITY CERTIFIED PART B PERMIT APPLICATION TO ECOLOGY.	06/30/2003

Table D. Major and Interim Milestones and Target Dates

Number	Milestone	Due Date
M-023-25	COMPLETE THE INSTALLATION OF LIQUID OBSERVATION WELLS (LOWs) FOR SSTs AX-103, B-101, T-101, T-109, TX-103, TX-104, B-107, B-108, B-109, BY-108, BX-110, TX-116, C-102, C-105, BX-109, TY-105, U-110, A-106, C-112, SX-111, SX-112, S-107, C-103, AND TX-105. ORDER OF INSTALLATION OF THESE LOWs SHALL GIVE PRIORITY TO THOSE CONTAINING PREDOMINANTLY SALT CAKE, OR WHICH OTHERWISE POSE A HIGHER RISK OF ENVIRONMENTAL CONTAMINATION SHOULD THEY FAIL. NOTE: LOW MONITORING FREQUENCY AND OTHER LEAK DETECTION AND MONITORING REQUIREMENTS WILL BE REVIEWED AS PART OF THE SINGLE-SHELL TANK SYSTEM LEAK DETECTION AND MONITORING FUNCTIONS AND REQUIREMENTS DOCUMENT.	09/30/2004
M-023-25D	COMPLETE THE INSTALLATION OF LIQUID OBSERVATION WELLS (LOWs) AND BEGIN WEEKLY LIQUID OBSERVATION MONITORING FOR FOUR ADDITIONAL SSTs.	09/30/2003
M-023-25E	PROCURE NECESSARY EQUIPMENT TO SUPPORT ADDITIONAL LOW MONITORING SYSTEMS.	09/30/2003
M-023-25F	COMPLETE THE INSTALLATION OF LIQUID OBSERVATION WELLS (LOWs) AND BEGIN WEEKLY LIQUID OBSERVATION MONITORING FOR FOUR ADDITIONAL SSTs.	03/31/2004
M-023-25G	COMPLETE THE INSTALLATION OF LIQUID OBSERVATION WELLS (LOWs) AND BEGIN WEEKLY LIQUID OBSERVATION MONITORING FOR FOUR ADDITIONAL SSTs.	09/30/2004
M-024-00O LEAD AGENCY: ECOLOGY	INSTALL RCRA GROUNDWATER MONITORING WELLS AT THE RATE OF 29 IN CY 1989, 30 IN CY 1990, AND UP TO 50 PER YEAR THEREAFTER AS SPECIFIED BY AGREED INTERIM MILESTONES UNTIL ALL LAND DISPOSAL UNITS AND SINGLE-SHELL TANKS ARE DETERMINED TO HAVE RCRA COMPLIANT MONITORING SYSTEMS. USDOE WILL INSTALL GROUNDWATER MONITORING WELLS AROUND RCRA LAND DISPOSAL UNITS AND THE SINGLE-SHELL TANKS AT THE RATE DESCRIBED ABOVE UNTIL ECOLOGY AGREES THAT ALL SUCH GROUNDWATER MONITORING SYSTEMS MEET THE REQUIREMENTS OF WAC 173-303-645. INSTALLATION OF GROUNDWATER WELLS SHALL MEAN THAT WELLS HAVE BEEN DRILLED, ADEQUATELY SEALED, AND SCREENED OVER NO MORE THAN 15 FEET OF THE AQUIFER UNLESS OTHERWISE APPROVED BY ECOLOGY, THAT ALL PUMPS AND ASSOCIATED SAMPLING EQUIPMENT HAVE BEEN INSTALLED, AND THAT SUCH WELLS HAVE BEEN DEVELOPED SUFFICIENTLY TO PROVIDE SATISFACTORY SAMPLES FOR ALL PARAMETERS TO BE ANALYZED. SPECIFIC UNITS TO RECEIVE GROUNDWATER WELLS AND THE NUMBER OF WELLS TO BE INSTALLED AT EACH UNIT WILL BE IDENTIFIED IN APPENDIX D IN TWO-YEAR INTERVALS (I.E., 1989 AND CY 1990 NOW, CY 1990 AND CY 1991 AT THE NEXT CY ANNUAL UPDATE, ETC.). SUCH SCHEDULES WILL BE ENFORCEABLE AS INTERIM MILESTONES.	12/31/2003

Table D. Major and Interim Milestones and Target Dates

Number	Milestone	Due Date
M-024-00P LEAD AGENCY: ECOLOGY	INSTALL RCRA GROUNDWATER MONITORING WELLS AT THE RATE OF UP TO 50 ..... (IF REQUIRED). (PLEASE REFER TO MILESTONE M-24-00O FOR COMPLETE WORDING OF THIS MILESTONE AND WORDING DETERMINING NUMBER OF WELLS TO BE DRILLED IN ANY ONE YEAR).	12/31/2004
M-024-00Q LEAD AGENCY: ECOLOGY	INSTALL RCRA GROUNDWATER MONITORING WELLS AT THE RATE OF UP TO 50 ..... (IF REQUIRED). (PLEASE REFER TO MILESTONE M-24-00O FOR COMPLETE WORDING OF THIS MILESTONE AND WORDING DETERMINING NUMBER OF WELLS TO BE DRILLED IN ANY ONE YEAR).	12/31/2005
M-024-00R LEAD AGENCY: ECOLOGY	INSTALL RCRA GROUNDWATER MONITORING WELLS AT THE RATE OF UP TO 50 ..... (IF REQUIRED). (PLEASE REFER TO MILESTONE M-24-00O FOR COMPLETE WORDING OF THIS MILESTONE AND WORDING DETERMINING NUMBER OF WELLS TO BE DRILLED IN ANY ONE YEAR).	12/31/2006 AND ANNUALLY THEREAFTER
M-026-01M	SUBMIT AN ANNUAL HANFORD LAND DISPOSAL RESTRICTIONS REPORT IN ACCORDANCE WITH AGREEMENT REQUIREMENTS TO COVER THE PERIOD FROM 1/1 OF THE PREVIOUS YEAR THROUGH 12/31 OF THE REPORTING YEAR. DOE'S ANNUAL HANFORD LAND DISPOSAL RESTRICTIONS REPORT: 1) WILL BE EQUIVALENT TO (I.E. SHALL MEET ALL SUBSTANTIVE REQUIREMENTS OF) SITE TREATMENT PLANS AS REQUIRED BY THE FEDERAL FACILITY COMPLIANCE ACT OF 1992 (FFCA) AND 2) WILL MEET ALL REQUIREMENTS OF ECOLOGY'S FINAL DETERMINATION IN THIS MATTER DATED MARCH 29, 2000. THE REPORT SHALL INCLUDE A DESCRIPTION OF ACTIVITIES PLANNED AND TAKEN IN ACCORDANCE WITH AGREEMENT REQUIREMENTS AND PRIOR ANNUAL LDR REPORTS TO ACHIEVE FULL COMPLIANCE WITH AGREEMENT AND LDR REQUIREMENTS. THE REPORT SHALL UPDATE ALL INFORMATION CONTAINED IN THE LDR PLAN AND THE PRIOR ANNUAL LDR REPORT, INCLUDING PLANS AND SCHEDULES. THE FORMAT FOR THE REPORT SHALL BE BASED ON EQUIVALENCY WITH SITE TREATMENT PLAN REQUIREMENTS OF THE FFCA, ECOLOGY'S FINAL DETERMINATION IN THIS MATTER DATED MARCH 29, 2000, AND THE "REQUIREMENTS FOR HANFORD LDR PLAN," ISSUED BY EPA AND ECOLOGY ON APRIL 10, 1990. ADDITIONALLY, THE REPORT SHALL DESCRIBE ANY OTHER STUDIES OR EFFORTS THAT HAVE BEEN OR WILL BE UNDERTAKEN TO IDENTIFY ALTERNATIVES TO LAND DISPOSAL OF MIXED WASTES. THE NONRADIOACTIVE PORTION OF ANY MIXED WASTES THAT ARE REGULATED UNDER WASHINGTON STATE-ONLY REGULATIONS SHALL BE ADDRESSED IN THE REPORT. THE REPORT SHALL BE SUBMITTED AS A PRIMARY DOCUMENT. THE REPORT SHALL DOCUMENT AGREEMENT MAJOR AND INTERIM MILESTONES FOR ACHIEVING COMPLIANCE WITH LDR TREATMENT REQUIREMENTS AT TSD MIXED WASTE UNITS BY: 1) IDENTIFYING AND REPORTING PROGRESS AGAINST AGREEMENT MILESTONES AND 2) PROPOSING THE ESTABLISHMENT OF MILESTONES IN THE INSTANCE OF TSD MIXED WASTES NOT YET COVERED UNDER THE AGREEMENT AND FOR	04/30/2003

Table D. Major and Interim Milestones and Target Dates

Number	Milestone	Due Date
	THE MODIFICATION OF CURRENT HFFACO SCHEDULES AS NECESSARY TO ACHIEVE COMPLIANCE WITH LDR TREATMENT REQUIREMENTS IN A MANNER EQUIVALENT TO STPs AS REQUIRED BY THE FFCA. THESE MILESTONES SHALL BE BASED ON SIGNIFICANT EVENTS IDENTIFIED IN THE LDR REPORT (I.E. SCHEDULES EQUIVALENT TO THOSE OF SITE TREATMENT PLANS AS REQUIRED BY THE FFCA) AND WILL BE SHOWN AS SCHEDULES WHICH ARE UPDATED ANNUALLY AS PART OF THE REPORT. APPROPRIATE MILESTONES WILL BE INCORPORATED IN THE AGREEMENT VIA THE CHANGE PROCESS DEFINED IN SECTION 12 OF THE ACTION PLAN UPON ISSUANCE OF THE APPROVED REPORTS.	
M-026-01N	SUBMIT AN ANNUAL HANFORD LAND DISPOSAL RESTRICTIONS REPORT IN ACCORDANCE WITH AGREEMENT REQUIREMENTS TO COVER THE PERIOD FROM 1-1 OF THE PREVIOUS YEAR THROUGH 12-31 OF THE REPORTING YEAR. (SEE M-26-01M FOR COMPLETE WORDING OF THIS MILESTONE)	04/30/2004
M-026-01O	SUBMIT AN ANNUAL HANFORD LAND DISPOSAL RESTRICTIONS REPORT IN ACCORDANCE WITH AGREEMENT REQUIREMENTS TO COVER THE PERIOD FROM 1-1 OF THE PREVIOUS YEAR THROUGH 12-31 OF THE REPORTING YEAR. (SEE M-26-01M FOR COMPLETE WORDING OF THIS MILESTONE)	04/30/2005
M-026-01P	SUBMIT AN ANNUAL HANFORD LAND DISPOSAL RESTRICTIONS REPORT IN ACCORDANCE WITH AGREEMENT REQUIREMENTS TO COVER THE PERIOD FROM 1-1 OF THE PREVIOUS YEAR THROUGH 12-31 OF THE REPORTING YEAR. (SEE M-26-01M FOR COMPLETE WORDING OF THIS MILESTONE)	04/30/2006 AND ANNUALLY THEREAFTER
M-026-05J	SUBMIT TO EPA AND ECOLOGY AN EVALUATION OF DEVELOPMENT STATUS OF TRITIUM TREATMENT TECHNOLOGY THAT WOULD BE PERTINENT TO THE CLEANUP AND MANAGEMENT OF TRITIATED WASTE WATER (e.g., THE 242-A EVAPORATOR PROCESS CONDENSATE LIQUID EFFLUENT) AND TRITIUM CONTAMINATED GROUNDWATER AT THE HANFORD SITE.	08/31/2003
M-026-05L	SUBMIT TO EPA AND ECOLOGY AN EVALUATION OF DEVELOPMENT STATUS OF TRITIUM TREATMENT TECHNOLOGY THAT WOULD BE PERTINENT TO THE CLEANUP AND MANAGEMENT OF TRITIATED WASTE WATER (e.g., THE 242-A EVAPORATOR PROCESS CONDENSATE LIQUID EFFLUENT) AND TRITIUM CONTAMINATED GROUNDWATER AT THE HANFORD SITE.	08/31/2005 AND BIENNIALLY THEREAFTER
M-034-00A LEAD AGENCY: EPA	COMPLETE REMOVAL OF SPENT NUCLEAR FUEL, SLUDGE, DEBRIS, AND WATER AT DOE'S K BASINS. NOTE: UNLESS OTHERWISE NOTED, THE TERM "K BASINS" IS USED HERE TO DENOTE BOTH K EAST AND K WEST BASINS.	07/31/2007
M-034-08	INITIATE FULL SCALE K EAST BASIN SLUDGE REMOVAL. DOE SHALL COMPLETE AND APPROVE K EAST SLUDGE REMOVAL DEFINITIVE DESIGN DOCUMENTS, ALL ASSOCIATED CONSTRUCTION, AND READINESS ASSESSMENTS, AND INITIATE REMOVAL OF SLUDGE FROM THE BASIN.	12/31/2002
M-034-09-T01	COMPLETE K BASINS RACK AND CANISTER REMOVAL. ALL FUEL STORAGE RACKS AND EMPTY FUEL CANISTERS SHALL BE REMOVED FROM THE K BASINS.	01/31/2005

Table D. Major and Interim Milestones and Target Dates

Number	Milestone	Due Date
M-034-10	COMPLETE SLUDGE REMOVAL FROM K BASINS. FUEL PROCESSING IN K BASINS SHALL BE COMPLETE, INCLUDING THE CAPTURE OF FUEL CANISTER SLUDGE IN THE INTEGRATED WATER TREATMENT SYSTEM AND REMOVAL OF VISIBLE FLOOR AND PIT SLUDGE.	08/31/2004
M-034-18B	COMPLETE REMOVAL OF ALL K BASIN SPENT NUCLEAR FUEL. THIS INTERIM MILESTONE WILL BE COMPLETE WHEN ALL SPENT NUCLEAR FUEL HAS BEEN REMOVED FROM BOTH THE K WEST BASIN AND THE K EAST BASIN AND HAS BEEN TRANSPORTED TO THE COLD VACUUM DRYING FACILITY. IT IS UNDERSTOOD THAT ADDITIONAL FUEL FRAGMENTS MAY BE DISCOVERED DURING REMOVAL OF THE SLUDGE.	07/31/2004
M-034-21-T01	INITIATE FULL SCALE K WEST BASIN WATER REMOVAL.	10/31/2005
M-034-22	COMPLETE K WEST BASIN WATER REMOVAL.	08/31/2006
M-034-23	INITIATE FULL SCALE K EAST BASIN WATER REMOVAL.	09/30/2004
M-034-24	COMPLETE K EAST BASIN WATER REMOVAL.	09/30/2005
M-034-25-T01	COMPLETE TRANSFER OF K EAST BASIN SPENT NUCLEAR FUEL TO THE K WEST BASIN. THIS TARGET DATE WILL BE COMPLETE WHEN ALL SPENT NUCLEAR FUEL HAS BEEN REMOVED FROM THE K EAST BASIN AND HAS BEEN TRANSPORTED INTO THE K WEST BASIN. IT IS UNDERSTOOD THAT ADDITIONAL FUEL FRAGMENTS MAY BE DISCOVERED DURING THE SUBSEQUENT REMOVAL OF THE SLUDGE.	05/31/2004
M-034-27-T01	COMPLETE REMOVAL OF SPENT NUCLEAR FUEL EQUIVALENT TO 1,252 METRIC TONS HEAVY METAL FROM THE K WEST BASIN. THIS INTERIM MILESTONE WILL BE COMPLETE WHEN SPENT NUCLEAR FUEL EQUIVALENT TO 1,252 METRIC TONS HEAVY METAL HAS BEEN REMOVED FROM K WEST BASIN AND TRANSPORTED TO THE COLD VACUUM DRYING FACILITY.	05/31/2003
M-034-28	COMPLETE REMOVAL OF SPENT NUCLEAR FUEL EQUIVALENT TO 1,619 METRIC TONS HEAVY METAL FROM THE K WEST BASIN. THIS INTERIM MILESTONE WILL BE COMPLETE WHEN SPENT NUCLEAR FUEL EQUIVALENT TO 1,619 METRIC TONS HEAVY METAL HAS BEEN REMOVED FROM THE K WEST BASIN AND TRANSPORTED TO THE COLD VACUUM DRYING FACILITY.	12/31/2003
M-035-00 LEAD AGENCY: DUAL	COMPLETE DATA MANAGEMENT ENHANCEMENTS AS NEGOTIATED AND APPROVED IN M-35-00 INTERIM MILESTONES.	To Be Determined

Table D. Major and Interim Milestones and Target Dates

Number	Milestone	Due Date
M-035-09D	CONDUCT BIENNIAL ASSESSMENTS OF INFORMATION AND DATA ACCESS NEEDS WITH EPA AND ECOLOGY. DOE WILL PROPOSE IMPLEMENTATION SCHEDULES (TPA MILESTONES) FOR ENHANCEMENTS AS A RESULT OF THE BIENNIAL ASSESSMENTS.	03/31/2004
M-035-09E	CONDUCT BIENNIAL ASSESSMENTS OF INFORMATION AND DATA ACCESS NEEDS WITH EPA AND ECOLOGY. DOE WILL PROPOSE IMPLEMENTATION SCHEDULES (TPA MILESTONES) FOR ENHANCEMENTS AS A RESULT OF THE BIENNIAL ASSESSMENTS.	03/31/2006 AND BIENNIALLY THEREAFTER
M-042-00 LEAD AGENCY: ECOLOGY	PROVIDE ADDITIONAL DOUBLE-SHELL TANK CAPACITY.	To Be Determined
M-043-00 LEAD AGENCY: ECOLOGY	COMPLETE TANK FARM UPGRADES.	06/30/2005
M-043-16	START CONSTRUCTION FOR UPGRADES IN THE FIFTH TANK FARM.	06/30/2003
M-045-00 LEAD AGENCY: ECOLOGY	COMPLETE CLOSURE OF ALL SINGLE SHELL TANK FARMS. CLOSURE WILL FOLLOW RETRIEVAL OF AS MUCH TANK WASTE AS TECHNICALLY POSSIBLE, WITH TANK WASTE RESIDUES NOT TO EXCEED 360 CUBIC FEET (CU. FT.) IN EACH OF THE 100 SERIES TANKS, 30 CU. FT. IN EACH OF THE 200 SERIES TANKS, OR THE LIMIT OF WASTE RETRIEVAL TECHNOLOGY CAPABILITY, WHICHEVER IS LESS. IF THE DOE BELIEVES THAT WASTE RETRIEVAL TO THESE LEVELS IS NOT POSSIBLE FOR A TANK, THEN DOE WILL SUBMIT A DETAILED EXPLANATION TO EPA AND ECOLOGY EXPLAINING WHY THESE LEVELS CANNOT BE ACHIEVED, AND SPECIFYING THE QUANTITIES OF WASTE THAT THE DOE PROPOSES TO LEAVE IN THE TANK. THE REQUEST WILL BE APPROVED OR DISAPPROVED BY EPA AND ECOLOGY ON A TANK-BY-TANK BASIS. PROCEDURES FOR MODIFYING THE RETRIEVAL CRITERIA LISTED ABOVE, AND FOR PROCESSING REQUESTS FOR EXCEPTIONS TO THE CRITERIA ARE OUTLINED IN APPENDIX H TO THE AGREEMENT. FOLLOWING COMPLETION OF RETRIEVAL, SIX OPERABLE UNITS (TANK FARMS), AS DESCRIBED IN APPENDIX C (200-BP-7, 200-PO-3, 200-RO-4, 200-TP-5, 200-TP-6, 200-UP-3), WILL BE REMEDIATED IN ACCORDANCE WITH THE APPROVED CLOSURE PLANS. FINAL CLOSURE OF THE OPERABLE UNITS (TANK FARMS) SHALL BE DEFINED AS REGULATORY APPROVAL OF COMPLETION OF CLOSURE ACTIONS AND COMMENCEMENT OF POST-CLOSURE ACTIONS. FOR THE PURPOSES OF THIS AGREEMENT ALL UNITS LOCATED WITHIN THE BOUNDARY OF EACH TANK FARM WILL BE CLOSED IN ACCORDANCE WITH WAC 173-303-610. THIS INCLUDES CONTAMINATED SOIL AND ANCILLARY EQUIPMENT THAT WERE PREVIOUSLY DESIGNATED AS RCRA PAST PRACTICE UNITS. ADOPTING THIS APPROACH WILL ENSURE EFFICIENT USE OF FUNDING AND WILL REDUCE POTENTIAL DUPLICATION OF EFFORT VIA APPLICATION OF DIFFERENT REGULATORY REQUIREMENTS: WAC 173-303-610 FOR CLOSURE OF THE TSD UNITS AND RCRA SECTION 3004(U) FOR REMEDIATION OF RCRA PAST PRACTICE UNITS.	09/30/2024

Table D. Major and Interim Milestones and Target Dates

Number	Milestone	Due Date
	ALL PARTIES RECOGNIZE THAT THE RECLASSIFICATION OF PREVIOUSLY IDENTIFIED RCRA PAST PRACTICE UNITS TO ANCILLARY EQUIPMENT ASSOCIATED WITH THE TSD UNIT IS STRICTLY FOR APPLICATION OF A CONSISTENT CLOSURE APPROACH. UPGRADES TO PREVIOUSLY CLASSIFIED RCRA PAST PRACTICE UNITS TO ACHIEVE COMPLIANCE WITH RCRA OR DANGEROUS WASTE INTERIM STATUS TECHNICAL STANDARDS FOR TANK SYSTEMS (I.E., SECONDARY CONTAINMENT, INTEGRITY ASSESSMENTS, ETC.) WILL NOT BE MANDATED AS A RESULT OF THIS ACTION. HOWEVER, ANY EQUIPMENT MODIFIED OR REPLACED WILL MEET INTERIM STATUS STANDARDS. IN EVALUATING CLOSURE OPTIONS FOR SINGLE-SHELL TANKS, CONTAMINATED SOIL, AND ANCILLARY EQUIPMENT, ECOLOGY AND EPA WILL CONSIDER COST, TECHNICAL PRACTICABILITY, AND POTENTIAL EXPOSURE TO RADIATION. CLOSURE OF ALL UNITS WITHIN THE BOUNDARY OF A GIVEN TANK FARM WILL BE ADDRESSED IN A CLOSURE PLAN FOR THE SINGLE-SHELL TANKS. COMPLIANCE WITH THE WORK SCHEDULES SET FORTH IN THIS M-45 SERIES IS DEFINED AS THE PERFORMANCE OF SUFFICIENT WORK TO ASSURE WITH REASONABLE CERTAINTY THAT DOE WILL ACCOMPLISH SERIES M-45 MAJOR AND INTERIM MILESTONE REQUIREMENTS. DOE INTERNAL WORK SCHEDULES (E.G., DOE APPROVED SCHEDULE BASELINES) AND ASSOCIATED WORK DIRECTIVES AND AUTHORIZATIONS SHALL BE CONSISTENT WITH THE REQUIREMENTS OF THIS AGREEMENT. MODIFICATION OF DOE CONTRACTOR BASELINE(S) AND ISSUANCE OF ASSOCIATED DOE WORK DIRECTIVES AND/OR AUTHORIZATIONS THAT ARE NOT CONSISTENT WITH AGREEMENT REQUIREMENTS SHALL NOT BE FINALIZED PRIOR TO APPROVAL OF AN AGREEMENT CHANGE REQUEST SUBMITTED PURSUANT TO AGREEMENT ACTION PLAN SECTION 12.0. COMPLETION OF THIS MAJOR MILESTONE REQUIRES THE COMPLETION OF THE WORK SCOPE IN ALL PRECEEDING MILESTONES AND TARGET DATES, UNLESS OTHERWISE AGREED TO BY THE PARTIES.	
M-045-00B	COMPLETE "NEAR TERM" SST WASTE RETRIEVAL ACTIVITIES. UNTIL THE WASTE TREATMENT COMPLEX IS OPERATIONAL, THE AMOUNT OF DST SPACE AVAILABLE TO RECEIVE SST WASTE IS LIMITED. THE NEAR TERM FOCUS FOR SST WASTE RETRIEVAL WILL INCLUDE MAXIMIZING THE TRANSFER OF CONTAMINANTS OF CONCERN (LONG-LIVED, MOBILE RADIONUCLIDES) INTO THE DST SYSTEM. WORK UNDER THIS MILESTONE ALSO INCLUDES COMPLETION OF ONE "LIMITS OF TECHNOLOGY" RETRIEVAL DEMONSTRATION, INITIATION OF A SECOND "LIMITS OF TECHNOLOGY" RETRIEVAL DEMONSTRATION, AND RETRIEVAL OF SUFFICIENT SST WASTE CONTAINING NO LESS THAN 800 CURIES OF CONTAMINANTS OF CONCERN AND OCCUPYING A MINIMUM OF 2 MILLION GALLONS OF DST SPACE (PER DOE BEST-BASIS INVENTORY DATA, 8/01/2000). "LIMITS OF TECHNOLOGY" RETRIEVAL DEMONSTRATIONS WILL SEEK TO IMPROVE UPON PAST PRACTICE SLUICING (PPS) BASELINE TECHNOLOGY INCLUDING BUT NOT LIMITED TO RETRIEVAL EFFICIENCY, LEAK LOSS DURING RETRIEVAL, AND LEAK DETECTION MITIGATION AND MONITORING (LDMM). PROCEDURES FOR MODIFYING THE RETRIEVAL CRITERIA LISTED WITHIN THE ASSOCIATED	09/30/2006

Table D. Major and Interim Milestones and Target Dates

Number	Milestone	Due Date
	MILESTONES, AND FOR PROCESSING REQUESTS FOR EXCEPTIONS TO THE CRITERIA ARE OUTLINED IN A NEW APPENDIX "H" TO THE AGREEMENT.	
M-045-00C	COMPLETE RENEGOTIATION OF SECOND PHASE (I.E., 9/30/2006 THROUGH 9/30/2015) SST WASTE RETRIEVAL ACTIVITIES. THESE NEGOTIATIONS SHALL TAKE INTO ACCOUNT VARIABLES SUCH AS WORK IN PROGRESS, E.G., DOE'S TANK WASTE TREATMENT COMPLEX ACQUISITION INITIATIVE AND ENVIRONMENTAL AND HUMAN HEALTH RISKS ASSOCIATED WITH RELEASES FROM DOE's SSTs. NEGOTIATIONS SHALL BE DESIGNED TO ESTABLISH A SUFFICIENT NUMBER OF AGREEMENT MILESTONES AND TARGET DATES TO EFFECTIVELY DRIVE EACH PHASE OF WORK INCLUDING BUT NOT LIMITED TO: 1.) WASTE RETRIEVAL TECHNOLOGY DEVELOPMENT, 2.) RETRIEVAL PERFORMANCE EVALUATIONS, 3.) LEAK DETECTION, MONITORING, AND MITIGATION, 4.) SELECTION OF SST RETRIEVAL SEQUENCE, 5.) DESIGN, CONSTRUCTION AND OPERATION OF SST WASTE RETRIEVAL SYSTEMS, AND 6.) CLOSURE PLANNING AND CLOSURE PLAN DEVELOPMENT. DOE, AND DOE’s CONTRACTOR(S) WILL RETRIEVE AND TRANSFER SST WASTES INTO THE DST SYSTEM AS SOON AS SPACE IS MADE AVAILABLE, ALLOWING DST SPACE FOR TREATMENT PLANT FEED STAGING AND SAFETY ISSUE RESOLUTION. TRANSFER OF SST WASTE WILL BE MADE ONCE SUFFICIENT DST SYSTEM SPACE IS AVAILABLE TO ALLOW A TRANSFER OF AN OPERATIONALLY PRACTICABLE VOLUME OF WASTE. SST WASTE WILL BE RETRIEVED ON A PRIORITY BASIS WITH THE GOALS OF REDUCING ENVIRONMENTAL RISK AND TREATMENT PROCESS OPTIMIZATION. DOE AND ECOLOGY WILL AGREE ON THE CRITERIA TO DETERMINE ENVIRONMENTAL RISK REDUCTION. NOTE: THESE NEGOTIATIONS WILL ALSO CONSIDER THE NEED FOR ADDITIONAL COMPLIANT STORAGE SPACE.	04/30/2004
M-045-00D	COMPLETE RENEGOTIATION OF THE REMAINDER OF THE SST WASTE RETRIEVAL AND CLOSURE PROGRAM. THESE NEGOTIATIONS WILL ESTABLISH REGULATORY REQUIREMENTS FOR THE REMAINDER OF THE SST WASTE RETRIEVAL AND CLOSURE PROGRAM (THROUGH COMPLETION OF CLOSURE AT ALL SINGLE SHELL TANK FARMS). NEGOTIATIONS WILL INCLUDE MODIFICATION AS MAY BE NECESSARY OF COMPLETION DATES FOR SST WASTE RETRIEVAL AND SST FARM CLOSURE BASED ON EXPERIENCE GAINED FROM SST AND DST WASTE RETRIEVAL WORK COMPLETED, CORRECTIVE ACTIONS, PHASE I TREATMENT COMPLEX OPERATIONS, PHASE II TREATMENT PLANNING, KNOWN AND LIKELY VADOSE ZONE AND GROUNDWATER IMPACTS, AND OTHER AVAILABLE ENVIRONMENTAL IMPACT INFORMATION. DOE, AND DOE’s CONTRACTOR(S) WILL RETRIEVE AND TRANSFER SST WASTES INTO THE DST SYSTEM AS SOON AS SPACE IS MADE AVAILABLE, ALLOWING DST SPACE FOR TREATMENT PLANT FEED STAGING AND SAFETY ISSUE RESOLUTION. TRANSFER OF SST WASTE WILL BE MADE ONCE SUFFICIENT DST SYSTEM SPACE IS AVAILABLE TO ALLOW A TRANSFER OF AN OPERATIONALLY PRACTICABLE VOLUME OF WASTE. SST WASTE WILL BE RETRIEVED ON A PRIORITY BASIS WITH	06/30/2011

Table D. Major and Interim Milestones and Target Dates

Number	Milestone	Due Date
	THE GOALS OF REDUCING ENVIRONMENTAL RISK AND TREATMENT PROCESS OPTIMIZATION. DOE AND ECOLOGY WILL AGREE ON THE CRITERIA TO DETERMINE ENVIRONMENTAL RISK REDUCTION.	
M-045-02L	SUBMIT ANNUAL UPDATES TO SST RETRIEVAL SEQUENCE DOCUMENT. THIS PROVIDES FOR AN ANNUAL UPDATE OF A SST RETRIEVAL SEQUENCE DOCUMENT THAT WILL DEFINE THE TANK RETRIEVAL SEQUENCE, SELECTION CRITERIA AND, RATIONALE, REFERENCE RETRIEVAL METHOD(S) FOR EACH TANK, AND THE ESTIMATED RETRIEVAL SCHEDULES. THE RETRIEVAL SEQUENCE DOCUMENT WILL DETAIL RETRIEVAL METHODOLOGIES TO BE EMPLOYED AND ESTIMATED WASTE VOLUMES TO BE GENERATED DURING RETRIEVAL (TO BE TRANSFERRED TO THE DST's OR OTHER AVAILABLE SAFE STORAGE). THE REPORT WILL ALSO DETAIL TANK SELECTION RATIONALE BASED ON THE PRIMARY OBJECTIVE OF MAXIMIZING RISK REDUCTION THROUGH THE RETRIEVAL OF MOBILE, LONG-LIVED RADIONUCLIDES OR POTENTIAL AIRBORNE CONTAMINANTS AND PRINCIPLE NON RADIOLOGICAL HAZARDOUS CONSTITUENTS IN A MANNER WHICH IS SENSITIVE TO WASTE TREATMENT FACILITY REQUIREMENTS AND INFRASTRUCTURE CONSTRAINTS. THE SEQUENCING WILL ALSO TAKE IN CONSIDERATION DOUBLE-SHELL TANK (DST) SPACE AND DST WASTE COMPATABILITY WHEN SELECTING THE SST RETRIEVAL SEQUENCE. THE ANNUAL UPDATES WILL BE SUBMITTED TO ECOLOGY FOR APPROVAL AS AGREEMENT PRIMARY DOCUMENTS.	09/30/2003
M-045-02M	SUBMIT ANNUAL UPDATE OF SST RETRIEVAL SEQUENCE DOCUMENT. (SEE TEXT OF M-45-02L FOR FURTHER DETAILS).	09/30/2004
M-045-02N	SUBMIT ANNUAL UPDATE OF SST RETRIEVAL SEQUENCE DOCUMENT. (SEE TEXT OF M-45-02L FOR FURTHER DETAILS).	09/30/2005
M-045-02O	SUBMIT ANNUAL UPDATE OF SST RETRIEVAL SEQUENCE DOCUMENT. (SEE TEXT OF M-45-02L FOR FURTHER DETAILS).	09/30/2006
M-045-02P	SUBMIT ANNUAL UPDATE OF SST RETRIEVAL SEQUENCE DOCUMENT. (SEE TEXT OF M-45-02L FOR FURTHER DETAILS).	09/30/2007 AND ANNUALLY THEREAFTER
M-045-03C	COMPLETE FULL SCALE SALTCAKE WASTE RETRIEVAL TECHNOLOGY DEMONSTRATION AT SINGLE-SHELL TANK S-112. WASTE SHALL BE RETRIEVED TO THE DST SYSTEM TO THE LIMITS OF THE TECHNOLOGY (OR TECHNOLOGIES) SELECTED. SELECTED SALTCAKE RETRIEVAL TECHNOLOGY (OR TECHNOLOGIES) MUST SEEK TO IMPROVE UPON THE PAST-PRACTICE SLUICING BASELINE IN THE AREAS OF EXPECTED RETRIEVAL EFFICIENCY, LEAK LOSS POTENTIAL, AND SUITABILITY FOR USE IN POTENTIALLY LEAKING TANKS. THIS DEMONSTRATION SHALL ALSO INCLUDE THE INSTALLATION AND IMPLEMENTATION OF FULL SCALE LEAK DETECTION, MONITORING, AND MITIGATION (LDMM) TECHNOLOGIES. THE PARTIES RECOGNIZE AND AGREE THAT THIS ACTION IS FOR DEMONSTRATION AND INITIAL WASTE RETRIEVAL PURPOSES. COMPLETION OF THIS DEMONSTRATION SHALL BE BY WRITTEN APPROVAL OF DOE AND ECOLOGY.	09/30/2005

Table D. Major and Interim Milestones and Target Dates

Number	Milestone	Due Date
	GOALS OF THIS DEMONSTRATION SHALL INCLUDE THE RETRIEVAL TO SAFE STORAGE OF APPROXIMATELY 550 CURIES OF MOBILE, LONG-LIVED RADIOISOTOPES AND 99% OF TANK CONTENTS BY VOLUME (PER DOE BEST-BASIS INVENTORY DATA, 8/01/2000).	
M-045-03D	COMPLETE S-112 SALTCAKE WASTE RETRIEVAL TECHNOLOGY DEMONSTRATION DESIGN (TO INCLUDE ALL PHYSICAL SYSTEMS INCLUDING DESIGN AND OPERATING STRATEGIES NECESSARY FOR LEAK DETECTION MONITORING AND MITIGATION (LDMM)). DESIGN WILL BE CONSIDERED COMPLETE WHEN 90% OF THE DESIGN HAS BEEN APPROVED FOR FABRICATION AND/OR CONSTRUCTION.	05/31/2003
M-045-03E	COMPLETE S-112 SALTCAKE WASTE RETRIEVAL TECHNOLOGY DEMONSTRATION CONSTRUCTION (TO INCLUDE ALL PHYSICAL SYSTEMS INCLUDING THOSE NECESSARY FOR LEAK DETECTION MONITORING AND MITIGATION). CONSTRUCTION WILL BE CONSIDERED COMPLETE WHEN ALL PROCESS EQUIPMENT IS INSTALLED AND ACCEPTANCE TESTS ARE COMPLETED.	09/30/2004
M-045-03F	COMPLETE FULL SCALE SLUDGE/HARD HEEL, CONFINED SLUICING AND ROBOTIC TECHNOLOGIES, WASTE RETRIEVAL DEMONSTRATION AT TANK C-104. WASTE SHALL BE RETRIEVED TO THE DST SYSTEM TO THE LIMITS OF THE TECHNOLOGY (OR TECHNOLOGIES) SELECTED. SELECTED SLUDGE/HARD HEEL TECHNOLOGY (OR TECHNOLOGIES) MUST SEEK TO IMPROVE UPON THE PAST-PRACTICE SLUICING BASELINE IN THE AREAS OF EXPECTED RETRIEVAL EFFICIENCY, LEAK LOSS POTENTIAL, AND SUITABILITY FOR USE IN POTENTIALLY LEAKING TANKS. CONFINED SLUICING IS DEFINED AS THE LOCALIZED ADDITION AND RETRIEVAL OF LIQUIDS AND WASTE. THIS DEMONSTRATION SHALL ALSO INCLUDE THE INSTALLATION AND IMPLEMENTATION OF FULL SCALE LEAK DETECTION, MONITORING, AND MITIGATION (LDMM) TECHNOLOGIES. THE PARTIES RECOGNIZE AND AGREE THAT THIS ACTION IS FOR DEMONSTRATION AND INITIAL WASTE RETRIEVAL PURPOSES. COMPLETION OF THIS DEMONSTRATION SHALL BE BY APPROVAL OF DOE AND ECOLOGY. GOALS OF THIS DEMONSTRATION SHALL INCLUDE THE RETRIEVAL TO SAFE STORAGE OF APPROXIMATELY 89 KG OF PLUTONIUM WHICH REPRESENTS APPROXIMATELY 17% OF THE TOTAL PLUTONIUM INVENTORY WITHIN THE SST SYSTEM), AND 99% OF TANK CONTENTS BY VOLUME (PER DOE'S BEST-BASIS INVENTORY DATA OF 8/01/2000).	09/30/2007
M-045-03G	COMPLETE C-104 SLUDGE/HARD HEEL, CONFINED SLUICING AND ROBOTIC TECHNOLOGIES, WASTE RETRIEVAL COLD DEMONSTRATION. THIS FULL SCALE DEMONSTRATION WILL BE SUFFICIENT TO SUPPORT FINAL DESIGN AND TESTING OF ALL EQUIPMENT, INCLUDING THE LDMM APPROACH USED IN THE ACTUAL SYSTEM. THE DEMONSTRATION MUST ESTABLISH THE PERFORMANCE OF THE EQUIPMENT SPECIFIED IN THE	06/30/2004

Table D. Major and Interim Milestones and Target Dates

Number	Milestone	Due Date
	FUNCTIONS AND REQUIREMENTS DOCUMENT. A LETTER REPORT WILL BE SUBMITTED TO ECOLOGY TO DOCUMENT THE RESULTS OF THE COLD DEMONSTRATION.	
M-045-03H	COMPLETE C-104 SLUDGE/HARD HEEL, CONFINED SLUICING AND ROBOTIC TECHNOLOGIES, WASTE RETRIEVAL DEMONSTRATION DESIGN (TO INCLUDE ALL PHYSICAL SYSTEMS INCLUDING DESIGN AND OPERATING STRATEGIES NECESSARY FOR LEAK DETECTION MONITORING AND MITIGATION (LDMM)). DESIGN WILL BE CONSIDERED COMPLETE WHEN 90% OF THE DESIGN HAS BEEN APPROVED FOR FABRICATION AND/OR CONSTRUCTION.	09/30/2004
M-045-03I	COMPLETE C-104 SLUDGE/HARD HEEL, CONFINED SLUICING AND ROBOTIC TECHNOLOGIES, WASTE RETRIEVAL DEMONSTRATION CONSTRUCTION (TO INCLUDE ALL PHYSICAL SYSTEMS INCLUDING THOSE NECESSARY FOR LEAK DETECTION MONITORING AND MITIGATION). CONSTRUCTION WILL BE CONSIDERED COMPLETE WHEN ALL PROCESS EQUIPMENT IS INSTALLED AND ACCEPTANCE TESTS ARE COMPLETED.	09/30/2006
M-045-05	RETRIEVE WASTE FROM ALL REMAINING SINGLE-SHELL TANKS. COMPLETE WASTE RETRIEVAL FROM ALL REMAINING SINGLE-SHELL TANKS. RETRIEVAL STANDARDS AND COMPLETION DEFINITIONS ARE PROVIDED UNDER THE MAJOR MILESTONE. THE SCHEDULE REFLECTS RETRIEVAL ACTIVITIES ON A FARM-BY-FARM BASIS. IT ALSO ALLOWS FLEXIBILITY TO RETRIEVE TANKS FROM VARIOUS FARMS IF DESIRED TO SUPPORT SAFETY ISSUE RESOLUTION, PRETREATMENT OR DISPOSAL FEED REQUIREMENTS, OR OTHER PRIORITIES.	09/30/2018
M-045-05-T05	INITIATE TANK RETRIEVAL FROM FIVE ADDITIONAL SINGLE-SHELL TANKS.	09/30/2007
M-045-05-T06	INITIATE TANK RETRIEVAL FROM FIVE ADDITIONAL SINGLE-SHELL TANKS.	09/30/2008
M-045-05-T07	INITIATE TANK RETRIEVAL FROM SEVEN ADDITIONAL SINGLE-SHELL TANKS.	09/30/2009
M-045-05-T08	INITIATE TANK RETRIEVAL FROM EIGHT ADDITIONAL SINGLE-SHELL TANKS.	09/30/2010
M-045-05-T09	INITIATE TANK RETRIEVAL FROM TEN ADDITIONAL SINGLE-SHELL TANKS.	09/30/2011
M-045-05-T10	INITIATE TANK RETRIEVAL FROM 12 ADDITIONAL SINGLE-SHELL TANKS.	09/30/2012
M-045-05-T11	INITIATE TANK RETRIEVAL FROM 14 ADDITIONAL SINGLE-SHELL TANKS.	09/30/2013
M-045-05-T12	INITIATE TANK RETRIEVAL FROM 17 ADDITIONAL SINGLE-SHELL TANKS.	09/30/2014

Table D. Major and Interim Milestones and Target Dates

Number	Milestone	Due Date
M-045-05-T13	INITIATE TANK RETRIEVAL FROM 20 ADDITIONAL SINGLE-SHELL TANKS.	09/30/2015
M-045-05-T14	INITIATE TANK RETRIEVAL FROM 20 ADDITIONAL SINGLE-SHELL TANKS.	09/30/2016
M-045-05-T15	INITIATE TANK RETRIEVAL FROM 20 ADDITIONAL SINGLE-SHELL TANKS.	09/30/2017
M-045-05-T17	SUBMIT S-105, S-106, AND S-103 WASTE RETRIEVAL AND CLOSURE DEMONSTRATION FUNCTIONS AND REQUIREMENTS DOCUMENT. THIS DOCUMENT WILL ESTABLISH DEMONSTRATION SYSTEM SPECIFICATIONS (INCLUDING LDMM SYSTEM SPECIFICATIONS) AND WILL ALSO INCLUDE A SCOPING LEVEL RETRIEVAL PERFORMANCE EVALUATION (RPE) FOR EACH TANK. THE FUNCTIONS AND REQUIREMENTS DOCUMENT AND ITS ASSOCIATED RPE SHALL ALSO PROVIDE, AS A SEPARATE EVALUATION FOR EACH OF THE TRHEE TANKS, ENVIRONMENTAL AND HUMAN HEALTH RISK EVALUATION DATA/INFORMATION ASSOCIATED WITH ESTIMATED WASTE VOLUMES TO BE RETRIEVED, THE MAXIMUM VOLUME WHICH COULD LEAK DURING RETRIEVAL, AND RISK FROM RESIDUAL WASTE. THIS DOCUMENT WILL DETAIL KNOWN AND ESTIMATED RADIONUCLIDE CONTAMINATION AND CONTAMINANT MIGRATION WITHIN THE VADOSE ZONE AS BASES OF CALCULATION. LDMM AND RPE DOCUMENTATION PROVIDED WILL BE ADEQUATE TO ALLOW ECOLOGY TO ASSESS THE ADEQUACY OF THE DEMONSTRATION SYSTEMS. THIS DOCUMENT WILL INCORPORATE LESSONS LEARNED, INCLUDING LDMM, RETRIEVAL, INSTRUMENTATION, AND OPERATIONAL EXPERIENCE FROM PREVIOUS DOE AND INDUSTRY RELATED RETRIEVAL PROJECTS. THE RETRIEVAL FUNCTIONS AND REQUIREMENTS DOCUMENT WILL DOCUMENT ALL PERTINENT RETRIEVAL AND CLOSURE REQUIREMENTS, E.G. THOSE SPECIFIC TO THE EXTENT OF RETRIEVAL NECESSARY TO ALLOW CLOSURE. DOE WILL SUBMIT ITS LDMM STRATEGY AS PART OF THE FUNCTIONS AND REQUIREMENTS DOCUMENT, PRIOR TO INITIATION OF DESIGN. THIS DOCUMENT WILL BE SUBMITTED FOR ECOLOGY APPROVAL AS AN AGREEMENT PRIMARY DOCUMENT. THIS FUNCTIONS AND REQUIREMENTS DOCUMENT WILL BE SUBMITTED IN A TIMELY FASHION SO THAT PROJECT CRITICAL PATH IS NOT AFFECTED, AND SO AS TO ALLOW ADEQUATE TIME FOR DOE AND ECOLOGY REVIEW, REVISION AND APPROVAL.	04/30/2005
M-045-05A	COMPLETE INITIAL WASTE RETRIEVAL FROM TANK S-102. THE S-102 INITIAL WASTE RETRIEVAL TECHNOLOGY (OR TECHNOLOGIES) WILL BE SELECTED BASED ON THE PRINCIPLE CRITERIA OF MAXIMIZING THE RETRIEVAL OF MOBILE, LONG-LIVED RADIOISOTOPES AND NON-RADIOLOGICAL HAZARDOUS CONSTITUENTS. THE PARTIES RECOGNIZE AND AGREE THAT THIS ACTION IS FOR INITIAL WASTE RETRIEVAL PURPOSES. COMPLETION OF THIS INITIAL RETRIEVAL SHALL BE BY APPROVAL OF DOE AND ECOLOGY.	09/30/2006

Table D. Major and Interim Milestones and Target Dates

Number	Milestone	Due Date
	GOALS OF THIS INITIAL WASTE RETRIEVAL PROJECT SHALL INCLUDE THE RETRIEVAL TO SAFE STORAGE OF APPROXIMATELY 490 CURIES OF MOBILE, LONG-LIVED RADIOISOTOPES AND 99% OF TANK CONTENTS BY VOLUME (PER DOE BEST-BASIS INVENTORY DATA, 8/01/2000). COMPLETION OF S-102 INITIAL WASTE RETRIEVAL IS SUBJECT TO SAFE STORAGE SPACE AVAILABILITY CONSISTENT WITH M-45-00B.	
M-045-05B	COMPLETE S-102 INITIAL RETRIEVAL PROJECT DESIGN (TO INCLUDE ALL PHYSICAL SYSTEMS INCLUDING DESIGN AND OPERATING STRATEGIES NECESSARY FOR LEAK DETECTION MONITORING AND MITIGATION (LDMM). THE DESIGN WILL BE CONSIDERED COMPLETE WHEN 90% OF THE DESIGN HAS BEEN APPROVED FOR FABRICATION AND/OR CONSTRUCTION.	03/31/2004
M-045-05C	COMPLETE S-102 INITIAL WASTE RETRIEVAL PROJECT CONSTRUCTION (TO INCLUDE ALL PHYSICAL SYSTEMS INCLUDING THOSE NECESSARY FOR LEAK DETECTION MONITORING AND MITIGATION). CONSTRUCTION WILL BE CONSIDERED COMPLETE WHEN ALL PROCESS EQUIPMENT IS INSTALLED AND ACCEPTANCE TESTS ARE COMPLETED.	11/30/2005
M-045-05E	COMPLETE S-105, S-106, AND S-103 WASTE RETRIEVAL AND CLOSURE DEMONSTRATION PROJECT DESIGN (TO INCLUDE ALL PHYSICAL SYSTEMS INCLUDING DESIGN AND OPERATING STRATEGIES NECESSARY FOR LEAK DETECTION MONITORING AND MITIGATION (LDMM) FOR EACH TANK). THE DESIGN WILL BE CONSIDERED COMPLETE WHEN 90% OF THE DESIGN HAS BEEN APPROVED FOR FABRICATION AND/OR CONSTRUCTION.	06/30/2007
M-045-05F	COMPLETE S-105, S-106, AND S-103 WASTE RETRIEVAL AND CLOSURE DEMONSTRATION PROJECT CONSTRUCTION (TO INCLUDE ALL PHYSICAL SYSTEMS INCLUDING THOSE NECESSARY FOR LEAK DETECTION MONITORING AND MITIGATION). CONSTRUCTION WILL BE CONSIDERED COMPLETE WHEN ALL PROCESS EQUIPMENT IS INSTALLED AND ACCEPTANCE TESTS ARE COMPLETED.	09/30/2008
M-45-05G-T01	COMPLETE S-105, S-106, AND S-103 WASTE RETRIEVAL. WASTE SHALL BE RETRIEVED TO THE DST SYSTEM TO THE LIMITS OF THE TECHNOLOGY (OR TECHNOLOGIES) SELECTED. RETRIEVAL SHALL RETRIEVE AS MUCH WASTE AS TECHNICALLY POSSIBLE, WITH A REMAINING RESIDUAL OF NO MORE THAN 360 CUBIC FEET (CU. FT.).	10/31/2009
M-45-05H	INTERIM COMPLETION OF TANK C-106 SST WASTE RETRIEVAL AND CLOSURE DEMONSTRATION PROJECT. THE C-106 SST WASTE RETRIEVAL AND CLOSURE DEMONSTRATION PROJECT WILL BE CONSIDERED INTERIM COMPLETE WHEN THE FOLLOWING CRITERIA HAVE BEEN MET:	4/30/2004

Table D. Major and Interim Milestones and Target Dates

Number	Milestone	Due Date
	1. FULL SCALE WASTE RETRIEVAL HAS BEEN COMPLETED IN ACCORDANCE WITH APPLICABLE REGULATORY REQUIREMENTS INCLUDING WASHINGTON'S HAZARDOUS WASTE MANAGEMENT ACT AND REQUIREMENTS SET BY THIS AGREEMENT (DOE WILL DOCUMENT PROJECT DATA AND RESULTS IN A WASTE RETRIEVAL AND CLOSURE DEMONSTRATION PROJECT REPORT). 2. REMAING WASTES HAVE BEEN ADEQUATELY CHARACTERIZED, AND A RISK ASSESSMENT, APPROVED BY ECOLOGY, HAS BEEN COMPLETED FOR RESIDUALS THAT REMAIN IN THE TANK. 3. THE C-106 WASTE RETRIEVAL AND CLOSURE DEMONSTRATION PLAN HAS BEEN SUBMITTED BY DOE AND APPROVED BY ECOLOGY, I.E. INCORPORATED INTO THE SITE-WIDE PERMIT. 4. IF APPROPRIATE, DOE HAS REQUESTED, AND ECOLOGY HAS APPROVED, AN EXCEPTION TO WASTE RETRIEVAL CRITERIA PURSUANT TO AGREEMENT APPENDIX H.	
M-45-05N-T01	FINAL COMPLETION OF TANK C-106 SST RETRIEVAL AND CLOSURE DEMONSTRATION PROJECT. COMPLETION OF THE TANK C-106 RETRIEVAL AND CLOSURE DEMONSTRATION PROJECT IS DEFINED AS THE COMPLETION OF NECESSARY FIELD PROJECT ACTIONS REQUIRED BY THE APPROVED C-106 WASTE RETRIEVAL AND CLOSURE DEMONSTRATION PLAN.	12/31/2004
M-45-05J-T01	COMPLETE C-106 WASTE RETRIEVAL AND CLOSURE DEMONSTRATION PROJECT DESIGN (TO INCLUDE ALL PHYSICAL SYSTEMS INCLUDING DESIGN AND OPERATING STRATEGIES NECESSARY FOR LEAK DETECTION MONITORING AND MITIGATION (LDMM)). THE DESIGN WILL BE CONSIDERED COMPLETE WHEN 90% OF THE DESIGN HAS BEEN APPROVED FOR FABRICATION AND/OR CONSTRUCTION.	4/30/2003
M-45-05K-T01	COMPLETE C-106 WASTE RETRIEVAL AND CLOSURE DEMONSTRATION PROJECT CONSTRUCTION (TO INCLUDE ALL PHYSICAL SYSTEMS INCLUDING THOSE NECESSARY FOR LEAK DETECTION MONITORING AND MITIGATION). CONSTRUCTION WILL BE CONSIDERED COMPLETE WHEN ALL EQUIPMENT IS INSTALLED AND ACCEPTANCE TESTS ARE COMPLETED.	9/30/2003
M-45-05L-T01	COMPLETE FULL SCALE C-106 WASTE RETRIEVAL. WASTE SHALL BE RETRIEVED TO THE DST SYSTEM TO THE LIMITS OF THE TECHNOLOGY (OR TECHNOLOGIES) SELECTED. RETRIEVAL SHALL RETRIEVE AS MUCH WASTE AS TECHNICALLY POSSIBLE, WITH A REMAINING RESIDUAL OF NO MORE THAN 360 CUBIC FEET (CU. FT.).	11/01/2003
M-45-05M-T01	SUBMIT C-106 WASTE RETRIEVAL RESULTS, ANALYSIS OF RESIDUAL WASTE(S), AND (IF APPROPRIATE) REQUEST FOR EXCEPTION TO THE CRITERIA PURSUANT TO AGREEMENT APPENDIX H.	2/27/2004
M-045-06	COMPLETE CLOSURE OF ALL SINGLE-SHELL TANK FARMS IN ACCORDANCE	09/30/2024

Table D. Major and Interim Milestones and Target Dates

Number	Milestone	Due Date
	WITH APPROVED CLOSURE/POST CLOSURE PLAN(S).	
M-045-06-T03	INITIATE CLOSURE ACTIONS ON AN OPERABLE UNIT OR TANK FARM BASIS. CLOSURE SHALL FOLLOW COMPLETION OF THE RETRIEVAL ACTIONS UNDER PROPOSED MILESTONE M-45-05. CLOSURE WILL BE DEFINED IN AN APPROVED CLOSURE PLAN FOR THE DEMONSTRATION FARM. FINAL CLOSURE IS DEFINED AS REGULATORY APPROVAL OF COMPLETION OF CLOSURE ACTIONS.	03/31/2012
M-045-06-T04	COMPLETE CLOSURE ACTIONS ON ONE OPERABLE UNIT OR TANK FARM.	03/31/2014
M-45-06-T20A	SUBMIT SST SYSTEM IMPLEMENTATION PLAN IN SUPPORT OF RETRIEVAL AND CLOSURE ACTIVITIES. MAJOR WORK AREAS COVERED IN THE IMPLEMENTATION PLAN WILL INCLUDE WASTE RETRIEVAL OPERABLE UNITS CHARACTERIZATION, TECHNOLOGIES DEVELOPMENT TO SUPPORT CLOSURE, RISK ASSESSMENTS, AND GROUNDWATER MONITORING STRATEGIES. (REFINEMENT OF THE MAJOR WORK AREAS WILL BE DEVELOPED IN A JOINT ECOLOGY/DOE WORKSHOP.) DOE's SST SYSTEM IMPLEMENTATION PLAN UPDATE WILL BE SUBMITTED TO ECOLOGY AS A PRIMARY DOCUMENT.	6/30/2004
M-45-06-T20B	SUBMIT SST SYSTEM IMPLEMENTATION PLAN IN SUPPORT OF RETRIEVAL AND CLOSURE ACTIVITIES. MAJOR WORK AREAS COVERED IN THE IMPLEMENTATION PLAN WILL INCLUDE WASTE RETRIEVAL OPERABLE UNITS CHARACTERIZATION, TECHNOLOGIES DEVELOPMENT TO SUPPORT CLOSURE, RISK ASSESSMENTS, AND GROUNDWATER MONITORING STRATEGIES. (REFINEMENT OF THE MAJOR WORK AREAS WILL BE DEVELOPED IN A JOINT ECOLOGY/DOE WORKSHOP.) DOE's SST SYSTEM IMPLEMENTATION PLAN UPDATE WILL BE SUBMITTED TO ECOLOGY AS A PRIMARY DOCUMENT.	6/30/2006
M-45-06-T20C	SUBMIT SST SYSTEM IMPLEMENTATION PLAN IN SUPPORT OF RETRIEVAL AND CLOSURE ACTIVITIES. MAJOR WORK AREAS COVERED IN THE IMPLEMENTATION PLAN WILL INCLUDE WASTE RETRIEVAL OPERABLE UNITS CHARACTERIZATION, TECHNOLOGIES DEVELOPMENT TO SUPPORT CLOSURE, RISK ASSESSMENTS, AND GROUNDWATER MONITORING STRATEGIES. (REFINEMENT OF THE MAJOR WORK AREAS WILL BE DEVELOPED IN A JOINT ECOLOGY/DOE WORKSHOP.) DOE's SST SYSTEM IMPLEMENTATION PLAN UPDATE WILL BE SUBMITTED TO ECOLOGY AS A PRIMARY DOCUMENT.	6/30/2008 (AND EVERY 2 YEARS THEREAFTER)
M-45-06A	SUBMIT A CERTIFIED (FRAMEWORK) SST SYSTEM CLOSURE PLAN AND C-106 WASTE RETRIEVAL AND CLOSURE DEMONSTRATION PLAN, AS AN APPLICATION FOR A MODIFICATION TO THE HANFORD SITE-WIDE	12/19/2002

Table D. Major and Interim Milestones and Target Dates

Number	Milestone	Due Date
	HAZARDOUS WASTE FACILITY PERMIT TO ECOLOGY. THIS SUBMITTAL WILL INCLUDE ALL REQUIRED CLOSURE PLAN ELEMENTS. ADDITIONALLY, THIS SUBMITTAL WILL INCLUDE THE FOLLOWING: 1. CHARACTERIZATION APPROACH FOR RESIDUAL WASTES. THIS APPROACH WILL SUPPORT DECISIONS REGARDING THE COMPLIANCE OF THE RESIDUAL WASTE WITH APPLICABLE REGULATORY REQUIREMENTS (INCLUDING BUT NOT LIMITED TO:CHARACTERIZATION NEEDS, WORK REQUIREMENTS, WORK SCHEDULES, AND CONTAMINANTS OF CONCERN FOR; RISK ASSESSMENT, LAND DISPOSAL RESTRICTION (LDR), AND THE WASHINGTON STATE HAZARDOUS WASTE MANAGEMENT ACT). 2. A RISK ASSESSMENT METHODOLOGY INCLUSIVE OF THE ASSUMPTIONS, APPROACH, CONCEPTUAL MODEL, AND METRICS (E.G., POINT OF COMPLIANCE, RECEPTOR SCENARIOS). THE CHARACTERIZATION REQUIREMENTS AND RISK ASSESSMENT METHODOLOGY WILL BE JOINTLY DEVELOPED BY DOE AND ECOLOGY PRIOR TO THE SUBMITTAL.	
M-45-06B	SUBMIT A CERTIFIED (FRAMEWORK) SST SYSTEM CLOSURE PLAN MODIFICATION AND S-112 WASTE RETRIEVAL AND CLOSURE DEMONSTRATION PLAN, AS AN APPLICATION FOR A MODIFICATION TO THE HANFORD SITE-WIDE HAZARDOUS WASTE FACILITY PERMIT TO ECOLOGY. THIS SUBMITTAL WILL INCLUDE ALL REQUIRED CLOSURE PLAN ELEMENTS. ADDITIONALLY, THIS SUBMITTAL WILL INCLUDE THE FOLLOWING: 1. CHARACTERIZATION APPROACH FOR RESIDUAL WASTES. THIS APPROACH WILL SUPPORT DECISIONS REGARDING THE COMPLIANCE OF THE RESIDUAL WASTE WITH APPLICABLE REGULATORY REQUIREMENTS (INCLUDING BUT NOT LIMITED TO: CHARACTERIZATION NEEDS, WORK REQUIREMENTS, WORK SCHEDULES, AND CONTAMINANTS OF CONCERN FOR; RISK ASSESSMENT, LAND DISPOSAL RESTRICTION (LDR), AND THE WASHINGTON STATE HAZARDOUS WASTE MANAGEMENT ACT). 2. A RISK ASSESSMENT METHODOLOGY INCLUSIVE OF THE ASSUMPTIONS, APPROACH, CONCEPTUAL MODEL, AND METRICS (E.G., POINT OF COMPLIANCE, RECEPTOR SCENARIOS). THE CHARACTERIZATION REQUIREMENTS AND RISK ASSESSMENT METHODOLOGY WILL BE JOINTLY DEVELOPED BY DOE AND ECOLOGY PRIOR TO THE SUBMITTAL.	3/31/2005
M-45-06C	SUBMIT A CERTIFIED (FRAMEWORK) SST SYSTEM CLOSURE PLAN MODIFICATION AND S-102 WASTE RETRIEVAL AND CLOSURE DEMONSTRATION PLAN, AS AN APPLICATION FOR A MODIFICATION TO THE HANFORD SITE-WIDE HAZARDOUS WASTE FACILITY PERMIT TO ECOLOGY. THIS SUBMITTAL WILL INCLUDE ALL REQUIRED CLOSURE PLAN ELEMENTS. ADDITIONALLY, THIS SUBMITTAL WILL INCLUDE THE FOLLOWING: 1. CHARACTERIZATION APPROACH FOR RESIDUAL WASTES. THIS	3/31/2006

Table D. Major and Interim Milestones and Target Dates

Number	Milestone	Due Date
	APPROACH WILL SUPPORT DECISIONS REGARDING THE COMPLIANCE OF THE RESIDUAL WASTE WITH APPLICABLE REGULATORY REQUIREMENTS (INCLUDING BUT NOT LIMITED TO: CHARACTERIZATION NEEDS, WORK REQUIREMENTS, WORK SCHEDULES, AND CONTAMINANTS OF CONCERN FOR; RISK ASSESSMENT, LAND DISPOSAL RESTRICTION (LDR), AND THE WASHINGTON STATE HAZARDOUS WASTE MANAGEMENT ACT). 2. A RISK ASSESSMENT METHODOLOGY INCLUSIVE OF THE ASSUMPTIONS, APPROACH, CONCEPTUAL MODEL, AND METRICS (E.G., POINT OF COMPLIANCE, RECEPTOR SCENERIOS). THE CHARACTERIZATION REQUIREMENTS AND RISK ASSESSMENT METHODOLOGY WILL BE JOINTLY DEVELOPED BY DOE AND ECOLOGY PRIOR TO THE SUBMITTAL.	
M-45-06D	SUBMIT A CERTIFIED (FRAMEWORK) SST SYSTEM CLOSURE PLAN MODIFICATION AND C-104 WASTE RETRIEVAL AND CLOSURE DEMONSTRATION PLAN, AS AN APPLICATION FOR A MODIFICATION TO THE HANFORD SITE-WIDE HAZARDOUS WASTE FACILITY PERMIT TO ECOLOGY. THIS SUBMITTAL WILL INCLUDE ALL REQUIRED CLOSURE PLAN ELEMENTS. ADDITIONALLY, THIS SUBMITTAL WILL INCLUDE THE FOLLOWING: 1. CHARACTERIZATION APPROACH FOR RESIDUAL WASTES. THIS APPROACH WILL SUPPORT DECISIONS REGARDING THE COMPLIANCE OF THE RESIDUAL WASTE WITH APPLICABLE REGULATORY REQUIREMENTS (INCLUDING BUT NOT LIMITED TO: CHARACTERIZATION NEEDS, WORK REQUIREMENTS, WORK SCHEDULES, AND CONTAMINANTS OF CONCERN FOR; RISK ASSESSMENT, LAND DISPOSAL RESTRICTION (LDR), AND THE WASHINGTON STATE HAZARDOUS WASTE MANAGEMENT ACT). 2. A RISK ASSESSMENT METHODOLOGY INCLUSIVE OF THE ASSUMPTIONS, APPROACH, CONCEPTUAL MODEL, AND METRICS (E.G., POINT OF COMPLIANCE, RECEPTOR SCENARIOS). THE CHARACTERIZATION REQUIREMENTS AND RISK ASSESSMENT METHODOLOGY WILL BE JOINTLY DEVELOPED BY DOE AND ECOLOGY PRIOR TO THE SUBMITTAL.	6/30/2007
M-45-06E	SUBMIT A CERTIFIED (FRAMEWORK) SST SYSTEM CLOSURE PLAN MODIFICATION FOR TANKS S-105, S-106, AND S-103 CLOSURE DEMONSTRATION PLAN, AS AN APPLICATION FOR A MODIFICATION TO THE HANFORD SITE-WIDE HAZARDOUS WASTE FACILITY PERMIT TO ECOLOGY. THIS SUBMITTAL WILL INCLUDE ALL REQUIRED CLOSURE PLAN ELEMENTS, AND PROVIDE A SEPARATE STAND ALONE EVALUATION FOR EACH TANK. ADDITIONALLY, THIS SUBMITTAL WILL INCLUDE THE FOLLOWING: 1. CHARACTERIZATION APPROACH FOR RESIDUAL WASTES IN S-105, S-106, AND S-103. THIS APPROACH WILL SUPPORT DECISIONS REGARDING THE COMPLIANCE OF THE RESIDUAL WASTE WITH APPLICABLE REGULATORY REQUIREMENTS (INCLUDING BUT NOT LIMITED TO: CHARACTERIZATION NEEDS, WORK REQUIREMENTS,	12/31/2008

Table D. Major and Interim Milestones and Target Dates

Number	Milestone	Due Date
	WORK SCHEDULES, AND CONTAMINANTS OF CONCERN FOR; RISK ASSESSMENT, LAND DISPOSAL RESTRICTION (LDR), AND THE WASHINGTON STATE HAZARDOUS WASTE MANAGEMENT ACT). 2. A RISK ASSESSMENT METHODOLOGY FOR TANKS S-105, S-106, AND S-103, INCLUSIVE OF THE ASSUMPTIONS, APPROACH, CONCEPTUAL MODEL, AND METRICS (E.G., POINT OF COMPLIANCE, RECEPTOR SCENARIOS). THE CHARACTERIZATION REQUIREMENTS AND RISK ASSESSMENT METHODOLOGY WILL BE JOINTLY DEVELOPED BY DOE AND ECOLOGY PRIOR TO THE SUBMITTAL.	
M-045-11	COMPLETE 244-AR VAULT INTERIM STABILIZATION.	09/30/2003
M-045-13	INTERIM COMPLETION OF TANK S-112 SST WASTE RETRIEVAL AND CLOSURE DEMONSTRATION PROJECT. THE S-112 SST WASTE RETRIEVAL AND CLOSURE DEMONSTRATION PROJECT WILL BE CONSIDERED INTERIM COMPLETE WHEN THE FOLLOWING CRITERIA HAVE BEEN MET: 1. FULL SCALE WASTE RETRIEVAL HAS BEEN COMPLETED IN ACCORDANCE WITH APPLICABLE REGULATORY REQUIREMENTS INCLUDING WASHINGTON'S HAZARDOUS WASTE MANAGEMENT ACT, REQUIREMENTS SET BY THIS AGREEMENT, AND THE APPROVED S-112 SALTCAKE WASTE RETRIEVAL TECHNOLOGY FUNCTIONS AND REQUIREMENTS DOCUMENT (DOE WILL DOCUMENT PROJECT DATA AND RESULTS IN A WASTE RETRIEVAL AND CLOSURE DEMONSTRATION PROJECT REPORT). 2. REMAINING WASTES HAVE BEEN ADEQUATELY CHARACTERIZED, AND A RISK ASSESSMENT, APPROVED BY ECOLOGY, HAS BEEN COMPLETED FOR RESIDUALS THAT REMAIN IN THE TANK. 3. THE S-112 WASTE RETRIEVAL AND CLOSURE DEMONSTRATION PLAN HAS BEEN SUBMITTED BY DOE AND APPROVED BY ECOLOGY, I.E. INCORPORATED INTO THE SITE-WIDE PERMIT. 4. IF APPROPRIATE, DOE HAS REQUESTED, AND ECOLOGY HAS APPROVED AN EXCEPTION TO WASTE RETRIEVAL CRITERIA PURSUANT TO AGREEMENT APPENDIX H.	6/30/2006
M-45-13-T01	FINAL COMPLETION OF TANK S-112 SST RETRIEVAL AND CLOSURE DEMONSTRATION PROJECT. COMPLETION OF THE TANK S-112 RETRIEVAL AND CLOSURE DEMONSTRATION PROJECT IS DEFINED AS THE COMPLETION OF NECESSARY FIELD PROJECT ACTIONS REQUIRED BY THE APPROVED S-112 WASTE RETRIEVAL AND CLOSURE DEMONSTRATION PLAN.	6/30/2007
M-45-14	INTERIM COMPLETION OF TANK C-104 SST WASTE RETRIEVAL AND CLOSURE DEMONSTRATION PROJECT. THE C-104 SST WASTE RETRIEVAL AND CLOSURE DEMONSTRATION PROJECT WILL BE CONSIDERED INTERIM COMPLETE WHEN THE FOLLOWING CRITERIA HAVE BEEN MET:	6/30/2008

Table D. Major and Interim Milestones and Target Dates

Number	Milestone	Due Date
	1. FULL SCALE WASTE RETRIEVAL HAS BEEN COMPLETED IN ACCORDANCE WITH APPLICABLE REGULATORY REQUIREMENTS INCLUDING WASHINGTON'S HAZARDOUS WASTE MANAGEMENT ACT, REQUIREMENTS SET BY THIS AGREEMENT, AND THE APPROVED C-104 SLUDGE/HARD HEEL, CONTAINED SLUICING AND ROBOTIC TECHNOLOGIES WASTE RETRIEVAL FUNCTIONS AND REQUIREMENTS DOCUMENT (DOE WILL DOCUMENT PROJECT DATA AND RESULTS IN A WASTE RETRIEVAL AND CLOSURE DEMONSTRATION PROJECT REPORT). 2. REMAINING WASTES HAVE BEEN ADEQUATELY CHARACTERIZED, AND A RISK ASSESSMENT, APPROVED BY ECOLOGY, HAS BEEN COMPLETED FOR RESIDUALS THAT REMAIN IN THE TANK. 3. THE C-104 WASTE RETRIEVAL AND CLOSURE DEMONSTRATION PLAN HAS BEEN SUBMITTED BY DOE AND APPROVED BY ECOLOGY, I.E. INCORPORATED INTO THE SITE-WIDE PERMIT. 4. IF APPROPRIATE, DOE HAS REQUESTED, AND ECOLOGY HAS APPROVED AN EXCEPTION TO WASTE RETRIEVAL CRITERIA PURSUANT TO AGREEMENT APPENDIX H.	
M-45-14-T01	FINAL COMPLETION OF TANK C-104 SST RETRIEVAL AND CLOSURE DEMONSTRATION PROJECT. COMPLETION OF THE TANK C-104 RETRIEVAL AND CLOSURE DEMONSTRATION PROJECT IS DEFINED AS THE COMPLETION OF NECESSARY FIELD PROJECT ACTIONS REQUIRED BY THE APPROVED C-104 WASTE RETRIEVAL AND CLOSURE DEMONSTRATION PLAN.	6/3/2009
M-45-15	INTERIM COMPLETION OF TANK S-102 SST WASTE RETRIEVAL AND CLOSURE DEMONSTRATION PROJECT. THE S-102 SST WASTE RETRIEVAL AND CLOSURE DEMONSTRATION PROJECT WILL BE CONSIDERED INTERIM COMPLETE WHEN THE FOLLOWING CRITERIA HAVE BEEN MET: 1. FULL SCALE WASTE RETRIEVAL HAS BEEN COMPLETED IN ACCORDANCE WITH APPLICABLE REGULATORY REQUIREMENTS INCLUDING WASHINGTON'S HAZARDOUS WASTE MANAGEMENT ACT, REQUIREMENTS SET BY THIS AGREEMENT, AND THE APPROVED S-102 INITIAL WASTE RETRIEVAL FUNCTIONS AND REQUIREMENTS DOCUMENT (DOE WILL DOCUMENT PROJECT DATA AND RESULTS IN A WASTE RETRIEVAL AND CLOSURE DEMONSTRATION PROJECT REPORT). 2. REMAINING WASTES HAVE BEEN ADEQUATELY CHARACTERIZED, AND A RISK ASSESSMENT, APPROVED BY ECOLOGY, HAS BEEN COMPLETED FOR RESIDUALS THAT REMAIN IN THE TANK. 3. THE S-102 WASTE RETRIEVAL AND CLOSURE DEMONSTRATION PLAN HAS BEEN SUBMITTED BY DOE AND APPROVED BY ECOLOGY, I.E. INCORPORATED INTO THE SITE-WIDE PERMIT. 4. IF APPROPRIATE, DOE HAS REQUESTED, AND ECOLOGY HAS APPROVED AN EXCEPTION TO WASTE RETRIEVAL CRITERIA PURSUANT TO AGREEMENT APPENDIX H.	6/30/2007
M-45-15-T01	FINAL COMPLETION OF TANK S-102 SST RETRIEVAL AND CLOSURE	6/30/2008

Table D. Major and Interim Milestones and Target Dates

Number	Milestone	Due Date
	DEMONSTRATION PROJECT. COMPLETION OF THE TANK S-102 RETRIEVAL AND CLOSURE DEMONSTRATION PROJECT IS DEFINED AS THE COMPLETION OF NECESSARY FIELD PROJECT ACTIONS REQUIRED BY THE APPROVED S-102 WASTE RETRIEVAL AND CLOSURE DEMONSTRATION PLAN.	
M-45-16	INTERIM COMPLETION OF TANK S-105, S-106, AND S-103 SST WASTE RETRIEVAL AND CLOSURE DEMONSTRATION PROJECT. THE S-105, S-106, AND S-103 SST WASTE RETRIEVAL AND CLOSURE DEMONSTRATION PROJECT WILL BE CONSIDERED INTERIM COMPLETE WHEN THE FOLLOWING CRITERIA HAVE BEEN MET AND DOCUMENTED FOR EACH OF THE TANKS: 1. FULL SCALE WASTE RETRIEVAL HAS BEEN COMPLETED IN ACCORDANCE WITH APPLICABLE REGULATORY REQUIREMENTS INCLUDING WASHINGTON'S HAZARDOUS WASTE MANAGEMENT ACT, REQUIREMENTS SET BY THIS AGREEMENT, AND THE APPROVED S-105, S-106, AND S-103 WASTE RETRIEVAL AND CLOSURE DEMONSTRATION FUNCTIONS AND REQUIREMENTS DOCUMENT (DOE WILL DOCUMENT PROJECT DATA AND RESULTS IN A WASTE RETRIEVAL AND CLOSURE DEMONSTRATION PROJECT REPORT). 2. REMAINING WASTES HAVE BEEN ADEQUATELY CHARACTERIZED, AND A RISK ASSESSMENT, APPROVED BY ECOLOGY, HAS BEEN COMPLETED FOR RESIDUALS THAT REMAIN IN THE TANK. 3. THE S-105, S-106, AND S-103 WASTE RETRIEVAL AND CLOSURE DEMONSTRATION PLAN HAS BEEN SUBMITTED BY DOE AND APPROVED BY ECOLOGY, I.E. INCORPORATED INTO THE SITE-WIDE PERMIT. 4. IF APPROPRIATE, DOE HAS REQUESTED, AND ECOLOGY HAS APPROVED, AN EXCEPTION TO WASTE RETRIEVAL CRITERIA PURSUANT TO AGREEMENT APPENDIX H. A REQUEST MAY BE MADE FOR EACH AND/OR ALL TANKS.	7/31/2010
M-45-16-T01	FINAL COMPLETION OF TANK S-105, S-106, AND S-103 SST RETRIEVAL AND CLOSURE DEMONSTRATION PROJECT. COMPLETION OF THE TANK S-105, S-106, AND S-103 RETRIEVAL AND CLOSURE DEMONSTRATION PROJECT IS DEFINED AS THE COMPLETION OF NECESSARY FIELD PROJECT ACTIONS REQUIRED BY THE APPROVED S-105, S-106, AND S-103 WASTE RETRIEVAL AND CLOSURE DEMONSTRATION PLAN.	7/31/2011
M-045-55	SUBMIT TO ECOLOGY FOR REVIEW AND APPROVAL AS AN AGREEMENT PRIMARY DOCUMENT A PHASE 1 RFI REPORT INTEGRATING RESULTS OF DATA GATHERING ACTIVITIES AND EVALUATIONS FOR WMAS S-SX, T, TX-TY, AND B-BX-BY AND RELATED ACTIVITIES, INCLUDING GROUNDWATER MONITORING AND IMPACTS ASSESSMENT USING HANFORD SITE GROUNDWATER MODELS, WITH CONCLUSIONS AND RECOMMENDATIONS.	02/28/2004
M-045-55-T03	SUBMIT TO ECOLOGY FOR REVIEW AND COMMENT AS AN AGREEMENT	01/31/2005

Table D. Major and Interim Milestones and Target Dates

Number	Milestone	Due Date
	SECONDARY DOCUMENT A FIELD INVESTIGATION REPORT PURSUANT TO THE SITE-SPECIFIC SST WMA PHASE 1 RFI/CMS WORK PLAN ADDENDA FOR WMA T AND WMA TX-TY.	
M-045-56	COMPLETE IMPLEMENTATION OF AGREED-TO INTERIM MEASURES. SPECIFIC INTERIM MEASURES WILL BE IMPLEMENTED PURSUANT TO AGREEMENT COMMITMENTS (E.G., SEE INTERIM MILESTONE M-45-57). INTERIM MEASURES MAY ALSO BE REQUIRED BY ECOLOGY, PROPOSED BY DOE IN THE SST WMA RFI REPORT (M-45-55) (OR ENGINEERING STUDIES INCLUDING THAT ADDRESSED IN TARGET MILESTONE M-45-56-T01), OR ESTABLISHED BY AGREEMENT OF THE PARTIES AT ANY TIME DURING THE CORRECTIVE ACTION PROCESS. ALSO SEE TABLE 1 OF AGREEMENT CHANGE CONTROL FORM #M-45-98-03. ECOLOGY AND DOE AGREE, AT A MINIMUM, TO MEET YEARLY (BY JULY OR AS NEEDED TO SUPPORT ANNUAL BUDGETING) FOR THE SPECIFIC PURPOSE OF ASSESSING THE ADEQUACY OF INFORMATION, AND THE NEED FOR THE ESTABLISHMENT OF ADDITIONAL AGREEMENT INTERIM MEASURES. ADDITIONAL AGREEMENT INTERIM MEASURES SHALL BE DOCUMENTED THROUGH ESTABLISHMENT OF INTERIM MILESTONES AND ASSOCIATED TARGET DATES AS AGREED NECESSARY BY THE PARTIES.	To Be Determined
M-045-58	SUBMIT TO ECOLOGY FOR REVIEW AND APPROVAL AS AN AGREEMENT PRIMARY DOCUMENT A CORRECTIVE MEASURES STUDY FOR INTERIM CORRECTIVE MEASURES (PENDING RESULTS AND CONCLUSIONS IN THE PHASE 1 RFI REPORT-MILESTONE M-45-55 OR SUBSEQUENT RFI REPORTS).	To Be Determined
M-045-59	CONTROL SURFACE WATER INFILTRATION PATHWAYS AS NEEDED TO CONTROL OR SIGNIFICANTLY REDUCE THE LIKELIHOOD OF MIGRATION OF SUBSURFACE CONTAMINATION TO GROUNDWATER AT THE SST WMAS (PENDING THE CMS REPORT, MILESTONE M-45-58, AND IMPLEMENTATION OF OTHER INTERIM CORRECTIVE MEASURES. DECISIONS ON CONTROLLING SURFACE WATER INFILTRATION PATHWAYS WILL BE MADE BY EVALUATING THE ROLE OF SURFACE WATER INFILTRATION AND THE TRANSPORT OF SUBSURFACE CONTAMINATION TO GROUNDWATER. BASED ON THE CORRECTIVE MEASURES STUDY (M-45-58) INTERIM SURFACE BARRIERS AND/OR OTHER INFILTRATION CONTROLS MAY BE REQUIRED.	To Be Determined
M-045-60	SUBMIT TO ECOLOGY FOR REVIEW AND APPROVAL AS AN AGREEMENT PRIMARY DOCUMENT DOE'S RFI/CMS WORK PLAN FOR SST WMAS. THIS RFI/CMS WORK PLAN SHALL DOCUMENT THE ADDITIONAL INTERIM MEASURES AND FURTHER INVESTIGATIONS NEEDED FOR DECISIONS ON RETRIEVAL, CLOSURE, AND CORRECTIVE MEASURES FOR THE SST WMAS.	SIX MONTHS FOLLOWING RFI REPORT APPROVAL
M-046-00J LEAD AGENCY: ECOLOGY	DOUBLE-SHELL TANK SPACE EVALUATION. THIS NEW MILESTONE REPLACES EXISTING MILESTONE M-31-02. A TANK VOLUME PROJECTION REPORT SHALL BE SUBMITTED ON AN ANNUAL	09/30/2003

Table D. Major and Interim Milestones and Target Dates

Number	Milestone	Due Date
	BASIS TO ECOLOGY AND EPA. THIS REPORT SHALL INCLUDE DISCUSSIONS COVERING ALL ASSUMPTION WHICH FORM THE BASIS OF THE PROJECTION. THE REPORT SHALL INCLUDE OR SHALL BE ACCOMPANIED BY DOE'S PLANS FOR ACQUISITION OF ADDITIONAL TANKS BASED ON THE TANK VOLUME PROJECTION.	
M-046-00K LEAD AGENCY: ECOLOGY	DOUBLE-SHELL TANK SPACE EVALUATION. THIS NEW MILESTONE REPLACES EXISTING MILESTONE M-31-02. A TANK VOLUME PROJECTION REPORT SHALL BE SUBMITTED ON AN ANNUAL BASIS TO ECOLOGY AND EPA. THIS REPORT SHALL INCLUDE DISCUSSIONS COVERING ALL ASSUMPTIONS WHICH FORM THE BASIS OF THE PROJECTION. THE REPORT SHALL INCLUDE OR SHALL BE ACCOMPANIED BY DOE'S PLANS FOR ACQUISTION OF ADDITIONAL TANKS BASED ON THE TANK VOLUME PROJECTION.	09/30/2004
M-046-00L LEAD AGENCY: ECOLOGY	DOUBLE-SHELL TANK SPACE EVALUATION. THIS NEW MILESTONE REPLACES EXISTING MILESTONE M-31-02. A TANK VOLUME PROJECTION REPORT SHALL BE SUBMITTED ON AN ANNUAL BASIS TO ECOLOGY AND EPA. THIS REPORT SHALL INCLUDE DISCUSSIONS COVERING ALL ASSUMPTIONS WHICH FORM THE BASIS OF THE PROJECTION. THE REPORT SHALL INCLUDE OR SHALL BE ACCOMPANIED BY DOE'S PLANS FOR ACQUISTION OF ADDITIONAL TANKS BASED ON THE TANK VOLUME PROJECTION.	09/30/2005
M-046-00M LEAD AGENCY: ECOLOGY	DOUBLE-SHELL TANK SPACE EVALUATION. THIS NEW MILESTONE REPLACES EXISTING MILESTONE M-31-02. A TANK VOLUME PROJECTION REPORT SHALL BE SUBMITTED ON AN ANNUAL BASIS TO ECOLOGY AND EPA. THIS REPORT SHALL INCLUDE DISCUSSIONS COVERING ALL ASSUMPTIONS WHICH FORM THE BASIS OF THE PROJECTION. THE REPORT SHALL INCLUDE OR SHALL BE ACCOMPANIED BY DOE'S PLANS FOR ACQUISTION OF ADDITIONAL TANKS BASED ON THE TANK VOLUME PROJECTION.	09/30/2006 AND ANNUALLY THEREAFTER
M-046-01I	CONCURRENCE OF ADDITIONAL TANK ACQUISITION. THE THREE PARTIES SHALL MEET TO ESTABLISH NEW MILESTONES, IF REQUIRED, FOR ACQUISITION OF ADDITIONAL TANKS.	04/20/2003
M-046-01J	CONCURRENCE OF ADDITIONAL TANK ACQUISITION. THE THREE PARTIES SHALL MEET TO ESTABLISH NEW MILESTONES, IF REQUIRED, FOR ACQUISITION OF ADDITIONAL TANKS.	11/30/2003
M-046-01K	CONCURRENCE OF ADDTIONAL TANK ACQUISITION. THE THREE PARTIES SHALL MEET TO ESTABLISH NEW MILESTONES, IF REQUIRED, FOR ACQUISTION OF ADDITIONAL TANKS.	11/30/2004
M-046-01L	CONCURRENCE OF ADDTIONAL TANK ACQUISITION. THE THREE PARTIES SHALL MEET TO ESTABLISH NEW MILESTONES, IF REQUIRED, FOR ACQUISTION OF ADDITIONAL TANKS.	11/30/2005
M-046-01M	CONCURRENCE OF ADDTIONAL TANK ACQUISITION. THE THREE PARTIES SHALL MEET TO ESTABLISH NEW MILESTONES, IF REQUIRED, FOR ACQUISTION OF ADDITIONAL TANKS.	11/30/2006 AND ANNUALLY THEREAFTER

Table D. Major and Interim Milestones and Target Dates

Number	Milestone	Due Date
M-46-21	COMPLETE IMPLEMENTATION OF DOUBLE SHELL TANK SPACE OPTIMIZATION STUDY RECCOMMENDATIONS (TANK SPACE OPTIONS REPORT, DOCUMENT NO. RPP-7702, APRIL 12, 2001). WORK UNDER THIS INTERIM MILESTONE SHALL HAVE THE OBJECTIVE OF CREATING SUFFICIENT DOUBLE-SHELL TANK STORAGE SPACE TO ACCOMMODATE THE PARTIES' WASTE RETRIEVAL AND CLOSURE DEMONSTRATIONS AT TANKS S-112, S-102, C-104, S-105, S-106, S-103 AND C-106. SUCH ACTIONS SHALL INCLUDE, BUT ARE NOT LIMITED TO DECREASING DEDICATED OPERATIONAL SPACE, CONCENTRATING WASTES TO A HIGHER SPECIFIC GRAVITY, AND RAISING ALLOWABLE TANK LEVELS.	12/31/2005
M-047-00	DOE, DOE's PROJECT HANFORD MANAGEMENT CONTRACTOR (PHMC), AND ASSOCIATED CONTRACTORS SHALL COMPLETE ALL WORK NECESSARY IN SUPPORT OF THE ACQUISITION AND PHASE I OPERATIONS OF HANFORD SITE HIGH-LEVEL RADIOACTIVE TANK WASTE TREATMENT, STORAGE, AND DISPOSAL FACILITIES. WORK INCLUDED UNDER THIS MILESTONE SERIES SHALL INCLUDE BUT IS NOT LIMITED TO WORK NECESSARY TO: (1) PROVIDE TIMELY TANK WASTE FEED TO TANK WASTE TREATMENT FACILITIES, (2) PROVIDE ADEQUATE DOUBLE-SHELL TANK (DST) SPACE, (3) PROVIDE NECESSARY INFRASTRUCTURE INCLUDING SOLID WASTE SERVICES AND SECONDARY WASTE TREATMENT (E.G., TANK WASTE TREATMENT FACILITY LIQUID EFFLUENTS). SEE ALSO MILESTONE SERIES M-90-00. THE PARTIES WILL REVISE OR CONFIRM THE DUE DATES FOR MILESTONES M-47-01, M-47-02, M-47-03, M-47-03A, M-47-04, M-47-05 AND M-47-05A WITHIN SIX (6) MONTHS OF AUTHORIZATION TO PROCEED (SEE MILESTONE M-62-04). REVISION, IF NECESSARY, SHALL BE CONSISTENT WITH HOT COMMISSIONING BY 2007, COMMERCIAL OPERATIONS BY 2009, AND COMPLETION OF PHASE I TREATMENT BY 2018. COMPLIANCE WITH THE WORK SCHEDULES SET FORTH IN THIS M-47 SERIES IS DEFINED AS THE PERFORMANCE OF SUFFICIENT WORK TO ASSURE WITH REASONABLE CERTAINTY THAT DOE WILL ACCOMPLISH SERIES M-47 MAJOR AND INTERIM MILESTONE REQUIREMENTS.DOE INTERNAL WORK SCHEDULES (E.G., DOE APPROVED SCHEDULE BASELINES) AND ASSOCIATED WORK DIRECTIVES AND AUTHORIZATIONS SHALL BE CONSISTENT WITH THE REQUIREMENTS OF THIS AGREEMENT. MODIFICATION OF DOE CONTRACTOR BASELINE(S) AND ISSUANCE OF ASSOCIATED DOE WORK DIRECTIVES AND/OR AUTHORIZATIONS THAT ARE NOT CONSISTENT WITH AGREEMENT REQUIREMENTS SHALL NOT BE FINALIZED PRIOR TO APPROVAL OF AN AGREEMENT CHANGE REQUEST SUBMITTED PURSUANT TO AGREEMENT ACTION PLAN SECTION 12.0.	02/28/2018
M-047-01	COMPLETE CONSTRUCTION OF THE TRANSFER SYSTEM FROM THE 241-AP TANK FARM TO THE BNFL FACILITY TO SUPPORT THE START OF HOT COMMISSIONING OF THE PHASE I TANK WASTE TREATMENT COMPLEX.	03/31/2006
M-047-02	COMPLETE STARTUP AND TURNOVER ACTIVITIES FOR REQUIRED TRANSFER SYSTEM UPGRADES TO ALLOW TRANSFER OF FIRST HIGH-LEVEL WASTE FEED TO THE PRETREATMENT / TREATMENT COMPLEX.	03/31/2007
M-047-03A	COMPLETE STARTUP AND TURNOVER ACTIVITIES FOR WASTE RETRIEVAL	02/28/2007

Table D. Major and Interim Milestones and Target Dates

Number	Milestone	Due Date
	AND MOBILIZATION SYSTEMS FOR SELECTED INITIAL HIGH-LEVEL WASTE FEED TANK.	
M-047-04	COMPLETE STARTUP AND TURNOVER ACTIVITIES FOR REQUIRED TRANSFER SYSTEM UPGRADES TO ALLOW TRANSFER OF FIRST LOW-ACTIVITY WASTE FEED TO THE PRETREATMENT / TREATMENT COMPLEX.	06/30/2007
M-047-05	START CONSTRUCTION OF WASTE RETRIEVAL AND MOBILIZATION SYSTEMS FOR SELECTED INITIAL LOW-ACTIVITY WASTE FEED TANK (OTHER THAN AZ-101 AND AZ-102).	05/31/2004
M-047-05A	COMPLETE STARTUP AND TURNOVER ACTIVITIES FOR WASTE RETRIEVAL AND MOBILIZATION SYSTEMS FOR SELECTED INITIAL LOW-ACTIVITY WASTE FEED TANK (OTHER THAN AZ-101 OR AZ-102).	04/30/2006
M-047-06	COMPLETE NEGOTIATION OF ADDITIONAL AGREEMENT REQUIREMENTS (MILESTONES, TARGET DATES, AND ASSOCIATED LANGUAGE) GOVERNING WORK NECESSARY TO SUPPORT COMPLETION OF TREATMENT COMPLEX PHASE I OPERATIONS BY 2018.	06/30/2010
M-048-00	COMPLETE TANK INTEGRITY ASSESSMENT ACTIVITIES FOR HANFORD'S DOUBLE SHELL TANK (DST) SYSTEM. COMPLETE TANK INTEGRITY ASSESSMENT ACTIVITIES AS SET FORTH IN INTERIM MILESTONES ESTABLISHED UNDER THIS MAJOR MILESTONE.	09/30/2007
M-48-02G	SUBMIT TO ECOLOGY A REPORT ASSESSING TECHNOLOGY DEVELOPMENT. DEVELOP ULTRASONIC TESTING EQUIPMENT, OR AN EQUIVALENT TECHNOLOGY, FOR ASSESSING MATERIAL THICKNESS AND DEFECTS OF THE PREDICTED MAXIMUM STRESS REGION OF THE LOWER KNUCKLE BASE METAL OF DOUBLE-SHELL TANKS. THIS REPORT SHALL INCLUDE THE COST OF DEVELOPMENT OF THIS EQUIPMENT, IDENTIFICATION OF VENDORS CONTRACTED FOR DEVELOPING SUCH EQUIPMENT, TECHNICAL SPECIFICATIONS FOR SUCH EQUIPMENT, DATA QUALITY REQUIREMENTS FOR SUCH EQUIPMENT, AND AN ESTIMATED SCHEDULE FOR DELIVERY AND DEPLOYMENT OF THE EQUIPMENT INTO THE DSTs. THIS REPORT SHALL BE UPDATED AND SUBMITTED TO ECOLOGY BY MARCH 31, 2001, WITH SUBSEQUENT UPDATES SUBMITTED TO ECOLOGY EVERY SIX (6) MONTHS THEREAFTER, UNTIL SUCH EQUIPMENT IS DEVELOPED AND DEPLOYED.	09/30/2003
M-48-02H	SUBMIT TO ECOLOGY A REPORT ASSESSING TECHNOLOGY DEVELOPMENT. DEVELOP ULTRASONIC TESTING EQUIPMENT, OR AN EQUIVALENT TECHNOLOGY, FOR ASSESSING MATERIAL THICKNESS AND DEFECTS OF THE PREDICTED MAXIMUM STRESS REGION OF THE LOWER KNUCKLE BASE METAL OF DOUBLE-SHELL TANKS. THIS REPORT SHALL INCLUDE THE COST OF DEVELOPMENT OF THIS EQUIPMENT, IDENTIFICATION OF VENDORS CONTRACTED FOR DEVELOPING SUCH EQUIPMENT, TECHNICAL SPECIFICATIONS FOR SUCH	03/30/2004

Table D. Major and Interim Milestones and Target Dates

Number	Milestone	Due Date
	EQUIPMENT, DATA QUALITY REQUIREMENTS FOR SUCH EQUIPMENT, AND AN ESTIMATED SCHEDULE FOR DELIVERY AND DEPLOYMENT OF THE EQUIPMENT INTO THE DSTs. THIS REPORT SHALL BE UPDATED AND SUBMITTED TO ECOLOGY BY MARCH 31, 2001, WITH SUBSEQUENT UPDATES SUBMITTED TO ECOLOGY EVERY SIX (6) MONTHS THEREAFTER, UNTIL SUCH EQUIPMENT IS DEVELOPED AND DEPLOYED.	
M-48-02I	SUBMIT TO ECOLOGY A REPORT ASSESSING TECHNOLOGY DEVELOPMENT. DEVELOP ULTRASONIC TESTING EQUIPMENT, OR AN EQUIVALENT TECHNOLOGY, FOR ASSESSING MATERIAL THICKNESS AND DEFECTS OF THE PREDICTED MAXIMUM STRESS REGION OF THE LOWER KNUCKLE BASE METAL OF DOUBLE-SHELL TANKS. THIS REPORT SHALL INCLUDE THE COST OF DEVELOPMENT OF THIS EQUIPMENT, IDENTIFICATION OF VENDORS CONTRACTED FOR DEVELOPING SUCH EQUIPMENT, TECHNICAL SPECIFICATIONS FOR SUCH EQUIPMENT, DATA QUALITY REQUIREMENTS FOR SUCH EQUIPMENT, AND AN ESTIMATED SCHEDULE FOR DELIVERY AND DEPLOYMENT OF THE EQUIPMENT INTO THE DSTs. THIS REPORT SHALL BE UPDATED AND SUBMITTED TO ECOLOGY BY MARCH 31, 2001, WITH SUBSEQUENT UPDATES SUBMITTED TO ECOLOGY EVERY SIX (6) MONTHS THEREAFTER, UNTIL SUCH EQUIPMENT IS DEVELOPED AND DEPLOYED.	09/30/2004 AND EVERY SIX MONTHS THEREAFTER UNTIL EQUIPMENT IS DEPLOYED
M-048-11	SUBMIT RESULTS OF (4) DST'S NOT PREVIOUSLY EXAMINED. SUBMIT A WRITTEN REPORT TO ECOLOGY DOCUMENTING RESULTS OF ULTRASONIC TESTING OF THE PRIMARY TANK WALLS IN FOUR (4) DST'S NOT PREVIOUSLY EXAMINED BY ULTRASONIC TESTING. THIS REPORT SHALL MEET ALL THE REQUIREMENTS AND CONDITIONS SET FORTH IN INTERIM MILESTONE M-48-03. THIS REPORT SHALL INCLUDE A SCHEDULE IDENTIFYING EACH OF FOUR (4) ADDITIONAL DST'S, NOT PREVIOUSLY EXAMINED BY ULTRASONIC TESTING, FOR COMPLETION BY SEPTEMBER 30, 2004.	09/30/2003
M-048-12	SUBMIT RESULTS OF (4) DST'S NOT PREVIOUSLY EXAMINED. SUBMIT A WRITTEN REPORT TO ECOLOGY DOCUMENTING RESULTS OF ULTRASONIC TESTING OF THE PRIMARY TANK WALLS IN FOUR (4) DST'S NOT PREVIOUSLY EXAMINED BY ULTRASONIC TESTING. THIS REPORT SHALL MEET ALL THE REQUIREMENTS AND CONDITIONS SET FORTH IN INTERIM MILESTONE M-48-03. THIS REPORT SHALL INCLUDE A SCHEDULE IDENTIFYING EACH OF FOUR (4) ADDITIONAL DST'S, NOT PREVIOUSLY EXAMINED BY ULTRASONIC TESTING, FOR COMPLETION BY SEPTEMBER 30, 2005.	09/30/2004
M-048-13	SUBMIT RESULTS OF (4) DST'S NOT PREVIOUSLY EXAMINED. SUBMIT A WRITTEN REPORT TO ECOLOGY DOCUMENTING RESULTS OF ULTRASONIC TESTING OF THE PRIMARY TANK WALLS IN FOUR (4) DST'S NOT PREVIOUSLY EXAMINED BY ULTRASONIC TESTING.THIS	09/30/2005

Table D. Major and Interim Milestones and Target Dates

Number	Milestone	Due Date
	REPORT SHALL MEET ALL THE REQUIREMENTS AND CONDITIONS SET FORTH IN INTERIM MILESTONE M-48-03.	
M-048-14	SUBMIT WRITTEN INTEGRITY REPORT FOR THE DOUBLE-SHELL TANK SYSTEM. SUBMIT A WRITTEN INTEGRITY ASSESSMENT REPORT FOR THE DOUBLE-SHELL TANK SYSTEM, TO ECOLOGY DOCUMENTING THE FOLLOWING: AN ASSESSMENT OF THE INTEGRITY OF THE DOUBLE-SHELL TANK SYSTEM. THE DOUBLE-SHELL TANK SYSTEM IS COMPRISED OF THE TWENTY-EIGHT (28) DST'S AND THEIR ANCILLARY EQUIPMENT. ANCILLARY EQUIPMENT WITHIN THE DOUBLE-SHELL TANK SYSTEM INCLUDES ALL SUBORDINATE TANK SYSTEMS AND THEIR VAULTS, TRANSFER PIPELINES, PUMP PITS, VALVE PITS, LIFT STATIONS, CATCH TANKS, THE 204-AR UNLOADING STATIONS, AND ANY OTHER ACTIVE COMPONENTS IDENTIFIED IN INTERIM MILESTONE M-48-01. THIS INTEGRITY ASSESSMENT SHALL BE COMPLETED, DOCUMENTED IN A REPORT TO ECOLOGY, AND CERTIFIED BY AN INDEPENDENT, QUALIFIED, REGISTERED, PROFESSIONAL ENGINEER (IQRPE), ON OR BEFORE MARCH 31, 2006. THIS INTEGRITY ASSESSMENT REPORT SHALL INCLUDE INFORMATION AND DATA SUFFICIENT TO DETERMINE THAT THE DOUBLE-SHELL TANK SYSTEM IS FIT-FOR-USE, AND WILL NOT COLLAPSE, RUPTURE, OR FAIL, UNDER NORMAL OPERATING CONDITIONS. THIS REPORT SHALL BE ACCOMPANIED BY A SCHEDULE AND RECOMMENDATIONS FOR FUTURE INTEGRITY ASSESSMENTS SUFFICIENT TO ENSURE THE SYSTEM WILL NOT COLLAPSE, RUPTURE, OR FAIL, UNDER NORMAL OPERATING CONDITIONS. THIS INTEGRITY ASSESSMENT REPORT SHALL DOCUMENT, AT A MINIMUM, ALL INFORMATION GATHERED FOR THE DOUBLE-SHELL TANK SYSTEM TO MEET THE REQUIREMENTS OF 40 CFR, SUBPART J, PART 265.191 (1), (2), (3), (4), (5)(I) AND (5)(II) (BECAUSE OF SPACE LIMITATIONS, PLEASE SEE TPA CHANGE REQUEST M-48-01-01 FOR 40 CFR WORDING OF SECTIONS REFERENCED ABOVE)	03/31/2006
M-048-15	SUBMIT A REPORT TO ECOLOGY FOR THE RE-EXAMINATION OF SIX (6) DST'S BY ULTRASONIC TESTING. SUBMIT A WRITTEN REPORT FOR THE RE-EXAMINATION OF SIX (6) DST'S BY ULTRASONIC TESTING IN ALL AREAS PREVIOUSLY EXAMINED TO PROVIDE COMPARATIVE DATA FROM WHICH TO CALCULATE CORROSION RATES IN EACH OF THE SIX (6) DST'S EXAMINED. TANKS SELECTED FOR EXAMINATION WILL BE RECOMMENDED BY USDOE AND WILL BE SUBJECT TO APPROVAL BY ECOLOGY. THE SELECTION OF EACH DST TO BE RE-EXAMINED SHALL CONSIDER ELAPSED TIME FROM PREVIOUS ULTRASONIC TESTING, SUFFICIENT TO ASSESS MEASURABLE WALL THINNING WITH THE ULTRASONIC EQUIPMENT USED. RE-EXAMINATION OF THE PREDICTED MAXIMUM STRESS REGION OF THE LOWER KNUCKLE BASE METAL MAY NOT BE REQUIRED, IF PRIOR APPROVAL IS OBTAINED FROM ECOLOGY FOR DELETING THIS PORTION	09/30/2007

Table D. Major and Interim Milestones and Target Dates

Number	Milestone	Due Date
	OF THE ULTRASONIC RE-EXAMINATION. THIS REPORT SHALL PROVIDE A CALCULATED CORROSION RATE FOR EACH DST, INCLUDE ALL CALCULATIONS, INCLUDE A THOROUGH DESCRIPTION OF ALL TERMS AND/OR FACTORS USED IN THE CALCULATIONS, AND INCLUDE A THOROUGH REFERENCE SECTION OF ALL CODES, STUDIES AND ASSUMPTIONS, USED IN DERIVING THE CALCULATED CORROSION RATE FOR EACH OF THE DST'S SELECTED.	
M-050-00 LEAD AGENCY: ECOLOGY	COMPLETE PRETREATMENT PROCESSING OF HANFORD TANK WASTE.	12/31/2028
M-051-00 LEAD AGENCY: ECOLOGY	COMPLETE VITRIFICATION OF HANFORD HIGH LEVEL TANK WASTE.	12/31/2028
M-061-00 LEAD AGENCY: ECOLOGY	COMPLETE PRETREATMENT AND IMMOBILIZATION OF HANFORD LOW ACTIVITY WASTE (LAW).	12/31/2028
M-062-00	COMPLETE PRETREATMENT PROCESSING AND VITRIFICATION OF HANFORD HIGH LEVEL (HLW) AND LOW ACTIVITY (LAW) TANK WASTES. COMPLIANCE WITH THE WORK SCHEDULES SET FORTH IN THIS M-62 SERIES IS DEFINED AS THE PERFORMANCE OF SUFFICIENT WORK TO ASSURE WITH REASONABLE CERTAINTY THAT DOE WILL ACCOMPLISH SERIES M-62 MAJOR AND INTERIM MILESTONE REQUIREMENTS. DOE INTERNAL WORK SCHEDULES (E.G., DOE APPROVED SCHEDULE BASELINES) AND ASSOCIATED WORK DIRECTIVES AND AUTHORIZATIONS SHALL BE CONSISTENT WITH THE REQUIREMENTS OF THIS AGREEMENT. MODIFICATION OF DOE CONTRACTOR BASELINE(S) AND ISSUANCE OF ASSOCIATED DOE WORK DIRECTIVES AND/OR AUTHORIZATIONS THAT ARE NOT CONSISTENT WITH AGREEMENT REQUIREMENTS SHALL NOT BE FINALIZED PRIOR TO APPROVAL OF AN AGREEMENT CHANGE REQUEST SUBMITTED PURSUANT TO AGREEMENT ACTION PLAN SECTION 12.0.	12/31/2028
M-062-00A	COMPLETE PRETREATMENT PROCESSING AND VITRIFICATION OF HANFORD HLW AND LAW PHASE I TANK WASTES. PHASE I TANK WASTE PROCESSING SHALL PRETREAT AND VITRIFY NO LESS THAN 10% OF HANFORD's TANK WASTE BY MASS* AND 25% BY ACTIVITY. *[IN MEETING THIS REQUIREMENT DOE WILL PRETREAT AND VITRIFY NO LESS THAN 6000 METRIC TONS OF SODIUM (IN THE INSTANCE OF LAW FEED) AND 800 METRIC TONS OF WASTE OXIDES (IN THE INSTANCE OF HLW FEED)]	02/28/2018
M-062-01G	SUBMIT SEMI-ANNUAL PROJECT COMPLIANCE REPORT. DOE's MANAGER, OFFICE OF RIVER PROTECTION (ORP), WILL SUBMIT A "PROJECT COMPLIANCE REPORT" TO ECOLOGY SEMI-ANNUALLY (A COPY OF THIS REPORT WILL ALSO BE PROVIDED TO EPA's REGION 10 OFFICE OF WASTE AND CHEMICALS MANAGEMENT). THIS REPORT WILL DOCUMENT DOE COMPLIANCE WITH AGREEMENT REQUIREMENTS AND SHALL	07/31/2003

Table D. Major and Interim Milestones and Target Dates

Number	Milestone	Due Date
	BE SEQUENTIALLY UPDATED BY INFORMATION DOCUMENTING WORK PERFORMED AND ISSUES ENCOUNTERED DURING THE PREVIOUS REPORT PERIOD. THE ORP PROJECT COMPLIANCE REPORT WILL BE PROVIDED AS PART OF THE PARTIES' INTER AGENCY MANAGEMENT INTEGRATION TEAM (IAMIT) MEETINGS, AND SHALL DOCUMENT THE STATUS OF PROGRESS TO DATE, PROGRESS MADE DURING THE REPORT PERIOD, AND ACTIVITIES EXPECTED IN THE FORSEEABLE FUTURE. THE REPORT WILL INCLUDE BUT IS NOT LIMITED TO: (1) A CONCISE DESCRIPTION OF PROJECT ACCOMPLISHMENTS AND ISSUES INCLUDING THOSE ENCOUNTERED DURING THE PREVIOUS YEAR AND THOSE EXPECTED IN THE NEAR TERM, (2) WHEN APPLICABLE, A DESCRIPTION OF ACTIONS INITIATED OR OTHERWISE TAKEN TO RECOVER ANY AGREEMENT SCHEDULE SLIPPAGE, (3) A BUDGET AND COST STATUS, (4) A STATEMENT DOCUMENTING WHETHER OR NOT DOE AND DOE's CONTRACTOR(S) REMAIN IN COMPLIANCE WITH AGREEMENT REQUIREMENTS, I.E. WHETHER OR NOT "DOE AND DOE CONTRACTOR(S) HAVE COMPLETED SUFFICIENT WORK TO ALLOW ACHIEVEMENT OF AGREEMENT REQUIREMENTS," AND (5) CONCISE DESCRIPTIONS OF ANY NONCOMPLIANCE. COPIES OF ALL PERTINENT DOE WORK DIRECTIVES AND/OR AUTHORIZATIONS ISSUED TO DOE's CONTRACTOR(S) SHALL BE PROVIDED ON REQUEST.	
M-062-01H	SUBMIT SEMI-ANNUAL PROJECT COMPLIANCE REPORT. DOE's MANAGER, OFFICE OF RIVER PROTECTION (ORP), WILL SUBMIT A "PROJECT COMPLIANCE REPORT" TO ECOLOGY SEMI-ANNUALLY (A COPY OF THIS REPORT WILL ALSO BE PROVIDED TO EPA's REGION 10 OFFICE OF WASTE AND CHEMICALS MANAGEMENT). THIS REPORT WILL DOCUMENT DOE COMPLIANCE WITH AGREEMENT REQUIREMENTS AND SHALL BE SEQUENTIALLY UPDATED BY INFORMATION DOCUMENTING WORK PERFORMED AND ISSUES ENCOUNTERED DURING THE PREVIOUS REPORT PERIOD. THE ORP PROJECT COMPLIANCE REPORT WILL BE PROVIDED AS PART OF THE PARTIES' INTER AGENCY MANAGEMENT INTEGRATION TEAM (IAMIT) MEETINGS, AND SHALL DOCUMENT THE STATUS OF PROGRESS TO DATE, PROGRESS MADE DURING THE REPORT PERIOD, AND ACTIVITIES EXPECTED IN THE FORSEEABLE FUTURE. THE REPORT WILL INCLUDE BUT IS NOT LIMITED TO: (1) A CONCISE DESCRIPTION OF PROJECT ACCOMPLISHMENTS AND ISSUES INCLUDING THOSE ENCOUNTERED DURING THE PREVIOUS YEAR AND THOSE EXPECTED IN THE NEAR TERM, (2) WHEN APPLICABLE, A DESCRIPTION OF ACTIONS INITIATED OR OTHERWISE TAKEN TO RECOVER ANY AGREEMENT SCHEDULE SLIPPAGE, (3) A BUDGET AND COST STATUS, (4) A STATEMENT DOCUMENTING WHETHER OR NOT DOE AND DOE's CONTRACTOR(S) REMAIN IN COMPLIANCE WITH AGREEMENT REQUIREMENTS, I.E. WHETHER OR NOT "DOE AND DOE CONTRACTOR(S) HAVE COMPLETED SUFFICIENT WORK TO ALLOW ACHIEVEMENT OF AGREEMENT REQUIREMENTS," AND (5) CONCISE DESCRIPTIONS OF ANY NONCOMPLIANCE. COPIES OF ALL PERTINENT DOE WORK DIRECTIVES AND/OR AUTHORIZATIONS ISSUED TO DOE's CONTRACTOR(S) SHALL BE PROVIDED ON REQUEST.	01/31/2004
M-062-01I	SUBMIT SEMI-ANNUAL PROJECT COMPLIANCE REPORT.	07/31/2004

Table D. Major and Interim Milestones and Target Dates

Number	Milestone	Due Date
	DOE's MANAGER, OFFICE OF RIVER PROTECTION (ORP), WILL SUBMIT A "PROJECT COMPLIANCE REPORT" TO ECOLOGY SEMI-ANNUALLY (A COPY OF THIS REPORT WILL ALSO BE PROVIDED TO EPA's REGION 10 OFFICE OF WASTE AND CHEMICALS MANAGEMENT). THIS REPORT WILL DOCUMENT DOE COMPLIANCE WITH AGREEMENT REQUIREMENTS AND SHALL BE SEQUENTIALLY UPDATED BY INFORMATION DOCUMENTING WORK PERFORMED AND ISSUES ENCOUNTERED DURING THE PREVIOUS REPORT PERIOD. THE ORP PROJECT COMPLIANCE REPORT WILL BE PROVIDED AS PART OF THE PARTIES' INTER AGENCY MANAGEMENT INTEGRATION TEAM (IAMIT) MEETINGS, AND SHALL DOCUMENT THE STATUS OF PROGRESS TO DATE, PROGRESS MADE DURING THE REPORT PERIOD, AND ACTIVITIES EXPECTED IN THE FORSEEABLE FUTURE. THE REPORT WILL INCLUDE BUT IS NOT LIMITED TO: (1) A CONCISE DESCRIPTION OF PROJECT ACCOMPLISHMENTS AND ISSUES INCLUDING THOSE ENCOUNTERED DURING THE PREVIOUS YEAR AND THOSE EXPECTED IN THE NEAR TERM, (2) WHEN APPLICABLE, A DESCRIPTION OF ACTIONS INITIATED OR OTHERWISE TAKEN TO RECOVER ANY AGREEMENT SCHEDULE SLIPPAGE, (3) A BUDGET AND COST STATUS, (4) A STATEMENT DOCUMENTING WHETHER OR NOT DOE AND DOE's CONTRACTOR(S) REMAIN IN COMPLIANCE WITH AGREEMENT REQUIREMENTS, I.E. WHETHER OR NOT "DOE AND DOE CONTRACTOR(S) HAVE COMPLETED SUFFICIENT WORK TO ALLOW ACHIEVEMENT OF AGREEMENT REQUIREMENTS," AND (5) CONCISE DESCRIPTIONS OF ANY NONCOMPLIANCE. COPIES OF ALL PERTINENT DOE WORK DIRECTIVES AND/OR AUTHORIZATIONS ISSUED TO DOE's CONTRACTOR(S) SHALL BE PROVIDED ON REQUEST.	
M-062-01J	SUBMIT SEMI-ANNUAL PROJECT COMPLIANCE REPORT. DOE's MANAGER, OFFICE OF RIVER PROTECTION (ORP), WILL SUBMIT A "PROJECT COMPLIANCE REPORT" TO ECOLOGY SEMI-ANNUALLY (A COPY OF THIS REPORT WILL ALSO BE PROVIDED TO EPA's REGION 10 OFFICE OF WASTE AND CHEMICALS MANAGEMENT). THIS REPORT WILL DOCUMENT DOE COMPLIANCE WITH AGREEMENT REQUIREMENTS AND SHALL BE SEQUENTIALLY UPDATED BY INFORMATION DOCUMENTING WORK PERFORMED AND ISSUES ENCOUNTERED DURING THE PREVIOUS REPORT PERIOD. THE ORP PROJECT COMPLIANCE REPORT WILL BE PROVIDED AS PART OF THE PARTIES' INTER AGENCY MANAGEMENT INTEGRATION TEAM (IAMIT) MEETINGS, AND SHALL DOCUMENT THE STATUS OF PROGRESS TO DATE, PROGRESS MADE DURING THE REPORT PERIOD, AND ACTIVITIES EXPECTED IN THE FORSEEABLE FUTURE. THE REPORT WILL INCLUDE BUT IS NOT LIMITED TO: (1) A CONCISE DESCRIPTION OF PROJECT ACCOMPLISHMENTS AND ISSUES INCLUDING THOSE ENCOUNTERED DURING THE PREVIOUS YEAR AND THOSE EXPECTED IN THE NEAR TERM, (2) WHEN APPLICABLE, A DESCRIPTION OF ACTIONS INITIATED OR OTHERWISE TAKEN TO RECOVER ANY AGREEMENT SCHEDULE SLIPPAGE, (3) A BUDGET AND COST STATUS, (4) A STATEMENT DOCUMENTING WHETHER OR NOT DOE AND DOE's CONTRACTOR(S) REMAIN IN COMPLIANCE WITH AGREEMENT REQUIREMENTS, I.E. WHETHER OR NOT "DOE AND DOE CONTRACTOR(S) HAVE COMPLETED SUFFICIENT WORK TO ALLOW ACHIEVEMENT OF AGREEMENT REQUIREMENTS," AND (5) CONCISE DESCRIPTIONS OF ANY NONCOMPLIANCE. COPIES OF ALL PERTINENT DOE WORK DIRECTIVES AND/OR AUTHORIZATIONS ISSUED TO DOE's CONTRACTOR(S) SHALL BE	01/31/2005 SEMI-ANNUALLY BEGINNING JULY 31, 2000

Table D. Major and Interim Milestones and Target Dates

Number	Milestone	Due Date
	PROVIDED ON REQUEST.	
M-062-03	SUBMIT DOE PETITION FOR RCRA DELISTING OF VITRIFIED HLW. DOE WILL SUBMIT ITS PETITION FOR DELISTING OF THE IMMOBILIZED HIGH-LEVEL WASTE (HLW) FROM THE PHASE I WASTE TREATMENT PLANT FROM RCRA AND THE WASHINGTON STATE HWMA (DELISTING PETITION) IN ACCORDANCE WITH 40 CFR 260.22 AND WAC 173-303-072.	12/31/2006
M-062-07A	INITIAL ERECTION OF LOW-ACTIVITY WASTE VITRIFICATION FACILITY ELEVATION -21' STRUCTURAL STEEL COLUMNS, BEAMS, AND Q DECK AT ELEVATION +3 (BNI BASELINE SCHEDULE ACTIVITY 4DL131B000 AS PART OF DOE CONTRACT NO. DE-AC27-01RV14136). THIS MILESTONE REPRESENTS THE PLACEMENT OF THE FIRST STRUCTURAL STEEL COLUMN AS PART OF INITIATION OF BNI BASELINE SCHEDULE ACTIVITY 4DL131B000 -LAW - ELEV -21 SS COLUMNS, BEAMS & Q-DECK AT +3 (CONTRACT NO. DE-AC27-01RV14136). IN ADDITION ACTIVITY 4DL121B100 LAW - ELEV -21 PLACE BASEMAT CONCRETE SHALL BE SUBSTANTIALLY COMPLETED AND ACTIVITIES 4DL121D000 LAW - ELEV -21 PERIMETER WALLS FREP AND 4DL121F000 LAW - ELEV -21 INTERIOR WALLS FREP SHALL HAVE BEEN INITIATED. COMPLETION OF THIS MILESTONE WILL BE MET WHEN THE FIRST STRUCTURAL STEEL COLUMN IS INSTALLED AT THE -21 FOOT ELEVATION IN THE LAW FACILITY. THIS MILESTONE DEMONSTRATES A SIGNIFICANT PROGRESS IN DESIGN AND ENGINEERING AS WELL AS CONSTRUCTION OF THE LAW FACILITY BECAUSE BASEMAT CONCRETE WILL HAVE BEEN POURED AND CONSTRUCTION OF WALLS WILL HAVE BEEN STARTED. IN ADDITION, PROCUREMENTS WILL HAVE BEEN MADE, NOT ONLY FOR THIS FACILITY, BUT FOR THE OTHER MAJOR FACILITIES. ERECTION OF STRUCTURAL STEEL IN THE LAW FACILITY WILL ALSO PROVIDE A LESSONS LEARNED OPPORTUNITY BECAUSE IT WILL BE THE FIRST FACILITY TO BEGIN THIS ASPECT OF CONSTRUCTION.	10/30/2003
M-062-07B	COMPLETE ASSEMBLY OF LOW ACTIVITY WASTE VITRIFICATION FACILITY MELTER #1 SO THAT IT IS READY FOR TRANSPORT AND INSTALLATION IN THE LAW VITRIFICATION BUILDING (BNI BASELINE SCHEDULE ACTIVITY 4DL321A300 AS PART OF DOE CONTRACT NO. DE-AC27-01RV14136). THIS MILESTONE REPRESENTS THE ASSEMBLY OF LAW MELTER #1 TO THE POINT IT IS READY FOR REFRACTORY AS PART OF BNI BASELINE ACTIVITIES 3EL3212A00 SPECIFICATIONS AND ANALYSIS, 4DL321A000 LAW - PROCURE MATERIAL & EQUIPMENT FOR MELTERS AND 4DL321A200 LAW- ASSEMBLE MELTER #1 (CONTRACT NO. DE-AC27-01RV14136). IN ADDITION, ACTIVITIES 4DL121U100 LAW - ELEV +3 SOUTH MELTER FREP AND 4DL131D000 LAW - ELEV +28 COLUMNS, BEAMS & Q-DECKING AT +48 SHALL BE SUBSTANTIALLY COMPLETED. COMPLETION OF THIS MILESTONE WILL BE MET WHEN LAW MELTER #1 WILL HAVE BEEN FULLY FABRICATED, ASSEMBLED AND READY FOR	11/30/2005

Table D. Major and Interim Milestones and Target Dates

Number	Milestone	Due Date
	REFRACTORY MATERIAL TO BE INSTALLED. ASSEMBLY OF THE MELTER IS SCHEDULED TO OCCUR NEAR THE END OF LAW CONSTRUCTION WHEN THE FACILITY IS MOST READY TO HAVE THE ASSEMBLED MELTER MOVED INTO THE LAW CELL WHERE THE REFRACTORY MATERIAL WILL BE INSTALLED. MEETING THIS MILESTONE THEREFORE REPRESENTS SIGNIFICANT ACCOMPLISHMENT OF THE ENGINEERING, DESIGN AND CONSTRUCTION OF THE LAW FACILITY. FURTHERMORE, ASSEMBLY OF THE FIRST MELTER PROVIDES SIGNIFICANT OPPORTUNITY FOR LESSONS LEARNED THAT CAN BE APPLIED IN THE ASSEMBLY OF THE OTHER TWO LAW MELTERS AS WELL AS THE HLW MELTER.	
M-062-08	SUBMITTAL OF HANFORD TANK WASTE PHASE II TREATMENT ALTERNATIVES REPORT. DOE WILL SUBMIT A PRELIMINARY REPORT THAT DESCRIBES THE TECHNICAL, FINANCIAL, AND CONTRACTUAL ALTERNATIVES TO TREAT THE TANK WASTES REMAINING AFTER COMPLETION OF PHASE I TREATMENT. THE REPORT WILL IDENTIFY CREDIBLE ALTERNATIVES TO COMPLETE TREATMENT OF THE REMAINING WASTES BY 2028, AND AID IN BUDGET PLANNING FOR FUTURE BUDGET AUTHORITY SUBMITTAL. THE REPORT WILL BE UPDATED EVERY TWO YEARS UNTIL THE TANK WASTE TREATMENT PHASE II PLAN IS FINALIZED.	07/31/2005
M-062-09	START (HOT) COMMISSIONING - PHASE I TREATMENT COMPLEX. DOE WILL START HOT COMMISSIONING OF ITS TANK WASTE TREATMENT COMPLEX (DEFINED AS FIRST PRINCIPAL FACILITY RECEIPT OF RADIOACTIVE TANK WASTE FOR TREATMENT).	12/31/2007
M-062-10	COMPLETE HOT COMMISSIONING - PHASE I TREATMENT COMPLEX. DOE WILL ACHIEVE SUSTAINED THROUGHPUT OF PRETREATMENT, LOW-ACTIVITY WASTE VITRIFICATION AND HIGH-LEVEL WASTE VITRIFICATION PROCESSES, AND DEMONSTRATED TREATMENT COMPLEX AVAILABILITY TO COMPLETE TREATMENT OF NO LESS THAN 10% OF THE TANK WASTE BY MASS AND 25% OF THE TANK WASTE BY ACTIVITY BY DECEMBER 2018.	01/31/2011
M-062-11	SUBMITTAL OF HANFORD TANK WASTE TREATMENT PHASE II PLAN. DOE WILL SUBMIT TO ECOLOGY A DETAILED PLAN AND PROPOSAL FOR THE PROCESSING OF THE REMAINDER OF DOE's LAW AND HLW WASTES (PHASE II WASTES). THIS PLAN AND PROPOSAL WILL BE ACCOMPLANIED BY A DRAFT NEGOTIATIONS AGREEMENT IN PRINCIPLE (AIP), AND DRAFT AGREEMENT CHANGE REQUEST CONTAINING SUFFICIENT ENFORCEABLE MILESTONES AND ASSOCIATED AGREEMENT REQUIREMENTS TO EFFECTIVELY DRIVE PHASE II WORK TO COMPLETION IN ACCORDANCE WITH AGREEMENT REQUIREMENTS. PHASE II AGREEMENT NEGOTIATIONS WILL BE COMPLETED WITHIN SIX (6) MONTHS OF AIP FINALIZATION.	01/31/2014
M-062-12	ISSUANCE OF DOE AUTHORIZATION TO PROCEED - PHASE II TREATMENT.	To Be Determined

Table D. Major and Interim Milestones and Target Dates

Number	Milestone	Due Date
	DOE WILL AUTHORIZE THE CONTRACT PHASE TO DESIGN, CONSTRUCT, COMMISSION, AND PROVIDE SERVICES FOR HANFORD TANK WASTE PRETREATMENT, LOW-ACTIVITY WASTE VITRIFICATION, AND HIGH-LEVEL WASTE VITRIFICATION OF ALL REMAINING HANFORD TANK WASTE, CONSISTENT WITH COMPLETION OF TREATMENT BY DECEMBER 2028.	(BY NEGOTIA-TIONS PROVIDED FOR AT M-62-11)
M-081-00A LEAD AGENCY: ECOLOGY	Complete FFTF Facility Transition and initiate the surveillance and maintenance phase. Completion of FFTF transition will include, but is not limited to the completion of: 1) dry cask storage of irradiated fuel, 2) dry storage of unirradiated and sodium bonded fuel, 3) sodium drain and storage 4) deactivation of the auxiliary plant systems. Work under this major milestone will be achieved by completing all activities necessary to achieve the end point criteria for placing the facility in a safe and stable surveillance and maintenance configuration.	2/28/2011
M-81-00A-T02 See Note	Complete transfer of unirradiated fuel to secure onsite storage. Thirty two unirradiated fuel assemblies presently stored in the interim decay storage vessel will be transferred to the Interim Examination and Maintenance (IEM) cell for washing and drying, loaded into existing approved shipping containers, and transferred to secure onsite storage (Should DOEs Savannah River Site (SRS) become available for FFTF fuel storage, this fuel may be shipped directly to SRS pending approval of environmental documentation). NOTE: The sequence of washing of unirradiated, irradiated and special fuel groups as identified in Target Dates M-81-00A-T02, M-81-00A-T03 and M-81-00A-T04 are dependent upon currently unknown external schedules (i.e. PFP shutdown schedule and INEEL (ANL-W) storage schedule), however, all the fuel will be washed and stored in time to meet the milestone date. Fuel washing operations for the fuel groups will be sequenced to accommodate storage schedules for each fuel group.	3/31/2009
M-81-00A-T03 See Note	Complete transfer of irradiated fuel to secure onsite storage. Irradiated fuel assemblies and pin containers will be transferred from the interim decay storage vessel and the fuel storage facility to the IEM cell for residual sodium removal, loaded into a core component container, transferred to the reactor service building cask loading station for placement into an interim storage cask for dry storage, and transferred to secure Hanford site storage.	3/31/2009

Table D. Major and Interim Milestones and Target Dates

Number	Milestone	Due Date
	NOTE: The sequence of washing of unirradiated, irradiated and special fuel groups as identified in Target Dates M-81-00A-T02, M-81-00A-T03 and M-81-00A-T04 are dependent upon currently unknown external schedules (i.e. PFP shutdown schedule and INEEL (ANL-W) storage schedule), however, all the fuel will be washed and stored in time to meet the milestone date. Fuel washing operations for the fuel groups will be sequenced to accommodate storage schedules for each fuel group.	
M-81-00A-T04 See Note	Complete transfer of special fuel to DOEs Idaho National Engineering Laboratory for consolidated storage. Sodium-bonded irradiated metal and carbide fuel from assemblies cleaned in the IEM Cell will be loaded into existing, approved shipping casks, and transported to the Idaho National Engineering Laboratory (INEEL, ANL-W) in Idaho Falls, Idaho, for consolidated storage. Should the INEEL, ANL-W facility not be readily available, sodium bonded fuel will be loaded in Interim Storage Casks and transferred to a storage location on the Hanford Site (e.g., 200 or 400 Area Interim Storage Areas). One unirradiated metal fuel assembly will also be dispositioned in a similar manner. NOTE: The sequence of washing of unirradiated, irradiated and special fuel groups as identified in Target Dates M-81-00A-T02, M-81-00A-T03 and M-81-00A-T04 are dependent upon currently unknown external schedules (i.e. PFP shutdown schedule and INEEL (ANL-W) storage schedule), however, all the fuel will be washed and stored in time to meet the milestone date. Fuel washing operations for the fuel groups will be sequenced to accommodate storage schedules for each fuel group.	3/31/2009
M-81-00A-T05	Complete auxiliary plant systems deactivation. A major portion of the plant auxiliary systems are required to support hot sodium circulation prior to draining the sodium. As these systems, and the balance of plant systems, become available for shutdown, they will be deactivated to a safe, stable condition.	2/28/2011
M-81-10-T01	Submit final sodium disposition evaluation report The Office of River Protection will use the Hanford Site radioactive sodium inventory (i.e., FFTF, Hallam and SRE sodium following conversion to sodium hydroxide) in the Waste Treatment Plant (WTP) for tank sludge pretreatment (i.e., caustic washing). A report will be prepared in concert with M-92-10 to: 1) determine where the sodium will be converted (i.e., an existing facility operated by Argonne National Laboratory – West (ANL-W) located within the INEEL site or at a new facility to be constructed adjacent to the Sodium	09/30/2005

Table D. Major and Interim Milestones and Target Dates

Number	Milestone	Due Date
	Storage Facility) and 2) to establish need dates for delivery of the caustic to WTP. Following submittal of this report, appropriate milestones and/or target dates will be established for the final disposition of the sodium.	
M-81-11	Submit FFTF End Point Criteria Document. A document identifying the end point criteria necessary to place the FFTF in a safe and stable surveillance and maintenance configuration will be developed. This document will be provided to EPA and Ecology for review, and approval for the regulated units and/or hazardous substances proposed to remain at the facility after transition is complete.	8/31/2005
M-81-12	Initiate FFTF Sodium Drain. This milestone will be complete when the drain of the first secondary loop is begun. Completion will be achieved when all the preparatory actions (i.e., procedures written and approved, plant configuration line-up, Operator training, facility startup review) have been completed and sodium is being transferred to in-plant tank T-44.	6/30/2003
M-81-13	Complete reactor and heat transport system sodium drain. Primary and Secondary heat transport systems, Reactor Vessel (including reactor vessel plenum), and supporting sodium systems will be drained to the sodium storage facility to the maximum extent practical. The sodium will be stored as product material in the sodium storage facility. Remaining sodium residuals (est. 3600 "gallons") will be solid in form (adhering to the surfaces of system components, small pockets inherent to the reactor design, and in heat transport system cold traps and valves). These residuals will be maintained under an inert gas blanket or passivated to minimize potential reactions during the long-term surveillance and maintenance phase. During final facility disposition, any regulated wastes generated from the cleaning or dismantlement of these systems will be managed in compliance with applicable regulatory requirements.	6/30/2005
M-81-14	Complete FFTF Sodium Drain. This milestone will be complete when all sodium (with the exception of noted sodium residuals) has been drained from the FFTF reactor and its associated systems and the fuel storage vessels.	9/30/2009
M-81-14-T01	Complete Fuel Storage Facility sodium drain. The Fuel Storage Facility vessel will be drained to the sodium storage facility to the maximum extent practical. Sodium residuals will be maintained under an inert gas	4/30/2007

Table D. Major and Interim Milestones and Target Dates

Number	Milestone	Due Date
	blanket or passivated to minimize potential reactions during the long-term surveillance and maintenance phase. During final facility disposition, any regulated wastes generated from the cleaning or dismantlement of these systems will be managed in compliance with applicable regulatory requirements.	
M-81-14-T02	Initiate Interim Decay Storage Vessel sodium drain. This milestone will be complete when sodium drain from the Interim Decay Storage Vessel is begun. Completion will be achieved when all the preparatory actions (i.e., procedures written and approved, plant configuration line-up, Operator training, facility startup review) have been completed and sodium is being transferred to in-plant tank T-43.	6/30/2008
M-81-15	Submit FFTF Surveillance and Maintenance Plan. DOE will develop a plan detailing S&M activities to occur at FFTF during the S&M phase. This plan will be provided to EPA and Ecology for review, and approval for the regulated units and/or hazardous substances proposed to remain at the facility. This plan will include documentation of lists of hazardous substances including dangerous wastes that remain in the FFTF Facility upon completion of transition because the hazardous substance: (1) contains non-dangerous waste components that are highly radioactive, (2) is part of the plant structure and/or (3) is an intact piece(s) of equipment.	06/30/2010
M-083-00A LEAD AGENCY: ECOLOGY	COMPLETE PFP FACILITY TRANSITION & SELECTED DISPOSITION ACTIVITIES. COMPLETION OF THIS MAJOR MILESTONE INCLUDES THE FOLLOWING KEY ELEMENTS: 1) COMPLETION OF ALL ACTIVITIES NECESSARY TO ACHIEVE END POINT CRITERIA ESTABLISHED THROUGH MILESTONE M-83-20 FOR PLACING THE PFP FACILITY IN A SAFE AND STABLE S&M MODE, 2) COMPLETION OF ALL ACTIVITIES DESCRIBED IN THE APPROVED M-83 SERIES INTERIM MILESTONES AND TARGET DATE; AND 3) COMPLETION OF THE BALANCE OF PFP SELECTED DISPOSITION ACTIVITIES PURSUANT TO THE FINAL ACTION MEMORANDA AND WORK PLANS. ALSO SEE "DESCRIPTION/JUSTIFICATION" CONTAINED IN CHANGE FORM M-83-01-03.	09/30/2016
MX-083-12-T01	SUBMIT PFP LEGACY PU HOLDUP REMOVAL PLAN TO ECOLOGY. THE PFP LEGACY PU HOLDUP REMOVAL PLAN WILL DEFINE THE STARTING INVENTORY OF PU IN VARIOUS LOCATIONS THROUGHOUT THE PROCESS FACILITIES, THE METHODS BY WHICH SIGNIFICANT CONCENTRATIONS OF HOLDUP WILL BE REMOVED AND THE DISPOSITION PATHS FOR THE HOLDUP THAT IS REMOVED. THE BEGINNING	12/31/2003

Table D. Major and Interim Milestones and Target Dates

Number	Milestone	Due Date
	INVENTORY AND LOCATIONS CONTAINING SIGNIFICANT QUANTITIES OF PU HOLDUP WILL BE IDENTIFIED AND QUANTIFIED USING THE HANFORD SITE SAFEGUARDS DATABASE FOR ACCOUNTABLE SNM. NOTE: INVENTORY INFORMATION MAY BE CLASSIFIED AND/OR RESTRICTED FROM PUBLIC RELEASE. ADDITIONAL ENGINEERING ANALYSIS AND NON-DESTRUCTIVE ASSAY MAY BE USED TO UPDATE OLDER DATA AND/OR TO MORE PRECISELY LOCATE CONCENTRATIONS OF HOLDUP. ALSO SEE "DESCRIPTION/JUSTIFICATION" CONTAINED IN CHANGE FORM M-83-01-03.	
M-083-13	COMPLETE REPACKAGING OF PFP MIXED WASTE RESIDUES AND SHIPMENT TO CENTRAL WASTE COMPLEX. THIS MILESTONE WILL BE COMPLETE WHEN RESIDUES IDENTIFIED IN THE IMPLEMENTATION PLAN FOR DEFENSE NUCLEAR FACILITIES SAFETY BOARD RECOMMENDATION 2000-1 DATED JULY 22, 2002, AS AMENDED HAVE BEEN REPACKAGED AT PFP AND SHIPPED TO THE CWC FOR STORAGE. THIS DOES NOT INCLUDE THOSE ITEMS IDENTIFIED AS NON-DESTRUCTIVE ASSAY (NDA) STANDARDS OR ITEMS SET ASIDE FOR THE WIPP VERIFICATION SAMPLING. PRIOR TO REPACKAGING, DATA FOR EACH RESIDUE WASTE STREAM SHALL BE OBTAINED TO SUPPORT WASTE DESIGNATION AND IDENTIFY WHERE SAMPLING AND ANALYSIS IS NEEDED. DATA FOR EACH WASTE STREAM WILL SATISFY RCRA GENERATOR REQUIREMENTS FOR DESIGNATION, WAC 173-303-070 THROUGH 110, LDR CERTIFICATION, AND THE RECEIVING FACILITY WASTE ACCEPTANCE CRITERIA, AS APPLICABLE. FOR TRU MIXED WASTE, PFP SHALL ALSO PROVIDE THE DATA NEEDS FOR CHARACTERIZATION OF TRU-MIXED WASTE STREAMS SUFFICIENT TO MEET THE ACCEPTABLE KNOWLEDGE REQUIREMENTS OF THE HANFORD TRU PROGRAM. RESIDUE CONTAINERS SHALL BE STORED IN HC-46F GLOVEBOX IN ROOM 170 OF BUILDING 234-5Z, ROOMS 192D AND 170, AND STAGED IN ROOM 169. RESIDUE CONTAINERS ARE PREPARED FOR SHIPMENT TO CWC IN ROOM 192 AND THE LOADING DOCK. THE POCS SHALL BE MANAGED IN ACCORDANCE WITH WAC 173-303-630, USE AND MANAGEMENT OF CONTAINERS. POCS SHALL MEET THE CWC REQUIREMENTS IN THE HANFORD SITE SOLID WASTE ACCEPTANCE CRITERIA AND COMPLY WITH APPLICABLE DANGEROUS WASTE MANAGEMENT REQUIREMENTS WHILE AWAITING CERTIFICATION AND TRANSFER TO WIPP. THE LOCATIONS OF WASTE MANAGEMENT ACTIVITIES MAY BE CHANGED THROUGH AGREEMENT OF THE PARTIES BY MODIFICATION OF THIS MILESTONE. ALSO SEE "DESCRIPTION/JUSTIFICATION" CONTAINED IN CHANGE FORM M-83-01-03.	04/30/2004
M-083-14	COMPLETE 100% OF THE LEGACY PU HOLDUP REMOVAL AS DEFINED IN THE LEGACY PU HOLDUP REMOVAL PLAN FOR PFP REQUIRED BY MX-83-12-T01. SIGNIFICANT QUANTITIES OF PLUTONIUM NOW HELD UP IN INACTIVE AND TO-BE DEACTIVATED PFP PROCESS EQUIPMENT AND PROCESS SUPPORT SYSTEMS WILL BE REMOVED BY A VARIETY OF MEANS	09/30/2006

Table D. Major and Interim Milestones and Target Dates

Number	Milestone	Due Date
	(BRUSHING, SCRAPING, DISSOLUTION, CHEMICAL DECONTAMINATION AGENTS, ETC.) IN ACCORDANCE WITH A PREVIOUSLY SUBMITTED LEGACY PU HOLDUP REMOVAL PLAN (MX-83-12-T01). SUFFICIENT HOLDUP WILL BE REMOVED TO MEET DOE'S CRITERIA FOR TERMINATING PROTECTED AREA CONTROLS OVER THE PROCESS EQUIPMENT AND PROCESS SUPPORT FACILITIES. PU HOLDUP REMOVED AS A RESULT OF THESE ACTIVITIES WILL BE ASSESSED AGAINST DOE'S DISCARD CRITERIA AND DISPOSITIONED VIA STABILIZATION, REPACKAGING AND TRANSFER TO THE PFP VAULTS OR TREATED AND/OR DIRECTLY REPACKAGED AS TRU WASTE OR PU RESIDUES FOR TRANSFER TO THE CWC AND EVENTUAL DISPOSITION AT WIPP. ALSO SEE "DESCRIPTION/JUSTIFICATION" CONTAINED IN CHANGE FORM M-83-01-03.	
M-083-20	SUBMIT FACILITY TRANSITION END POINT CRITERIA DOCUMENT AS A PRIMARY DOCUMENT TO ECOLOGY PURSUANT TO AGREEMENT ACTION PLAN SECTION 8.5.3. A DOCUMENT IDENTIFYING END POINT CRITERIA NECESSARY TO PLACE PFP IN AN ENVIRONMENTALLY SOUND, SAFE, AND STABLE CONFIGURATION WILL BE SUBMITTED TO ECOLOGY FOR REVIEW AND APPROVAL. LEAD REGULATORY AGENCY APPROVAL OF ENDPOINT CRITERIA IN THIS DOCUMENT WILL BE SPECIFIC TO REGULATED UNITS AND HAZARDOUS SUBSTANCES PROPOSED TO REMAIN AT THE FACILITY AFTER THE TRANSITION PHASE OF FACILITY DECOMMISSIONING IS COMPLETE. SUBSEQUENT TO THIS INITIAL SUBMITTAL, THE END POINT CRITERIA DOCUMENT MAY BE UPDATED AS NECESSARY TO REFLECT THE M-83-22 DECISION(S) FOR COMPLETION OF M-83-00A, AND THROUGHOUT TRANSITION TO REFLECT CHANGES THAT MAY OCCUR DURING DEACTIVATION WORK ACTIVITIES. AS A PRIMARY DOCUMENT, REVISIONS ARE SUBJECT TO ECOLOGY REVIEW AND APPROVAL. ALSO SEE "DESCRIPTION/JUSTIFICATION" CONTAINED IN CHANGE FORM M-83-01-03.	09/30/2003
M-083-22	SUBMIT TO ECOLOGY AN ENGINEERING EVALUATION/COST ANALYSIS(ES) [EE/CA(S)] FOR APPROVAL AND PROVIDE AN ACTION MEMORANDUM(A) AS A PRIMARY DOCUMENT(S) FOR THE DECOMMISSIONING OF THE PFP FACILITY. THE ACTION MEMORANDUM(A) WILL INCLUDE A SCHEDULE FOR THE SUBMITTAL OF WORK PLANS AS PRIMARY DOCUMENT(S). SCOPING OF THE EE/CA(S) SHALL BE DONE TO SUPPORT TIMELY ACCOMPLISHMENT OF DISMANTLEMENT WORK SCOPE. MORE SPECIFICALLY, AN EE/CA AND ACTION MEMORANDUM CAN BE PHASED TO SUPPORT A NEAR TERM DISMANTLEMENT WITH SUBSEQUENT EE/CA(S) ADDRESSING REMAINING WORK SCOPE. THE ACTION MEMORANDUM(A) WILL BE CONSISTENT WITH SECTION 8 OF THE HFFACO AND WILL NOT BE INCONSISTENT WITH EXECUTIVE ORDER 12850. COMPLETION OF THIS MILESTONE SHALL ALSO REQUIRE DOE TO PERFORM AN EVALUATION OF ACTIONS NECESSARY TO ADDRESS BELOW-	09/30/2008

Table D. Major and Interim Milestones and Target Dates

Number	Milestone	Due Date
	GRADE STRUCTURES OR OTHER STRUCTURES OR HAZARDOUS SUBSTANCES, DANGEROUS WASTE OR DANGEROUS CONSTITUENTS REMAINING AFTER COMPLETION OF M-83-00A. THIS WILL INCLUDE ENVIRONMENT ANALYSIS AND PUBLIC REVIEW. ALSO SEE "DESCRIPTION/JUSTIFICATION" CONTAINED IN CHANGE FORM M-83-01-03.	
M-083-23	COMPLETE NEGOTIATIONS AS NEEDED FOR REVISING MILESTONES CONSISTENT WITH FINAL ACTION MEMORANDA FOR DECOMMISSIONING OF PFP. IF THE FINAL ACTION MEMORANDA FOR DECOMMISSIONING OF PFP DO NOT SUPPORT THE EXISTING MILESTONES LEADING TO THE PROPOSED END POINT OF A SAFE AND STABLE SLAB-ON-GRADE CONFIGURATION, AND ECOLOGY DETERMINES THAT SUCH MILESTONES ARE NOT NEEDED TO PROTECT HUMAN HEALTH AND THE ENVIRONMENT OR TO ACHIEVE COMPLIANCE WITH APPLICABLE REGULATIONS, THE PARTIES WILL COMPLETE NEGOTIATIONS TO ESTABLISH REVISED MILESTONES CONSISTENT WITH THE DECISION DOCUMENTATION. THIS MILESTONE IS COMPLETE IF NEGOTIATIONS ARE COMPLETED BY THE INDICATED DATE OR IF ECOLOGY DETERMINES THAT NEGOTIATIONS ARE NOT REQUIRED.	03/31/2009
M-083-24	SUBMIT A SURVEILLANCE AND MAINTENANCE (S&M) PLAN AS A PRIMARY DOCUMENT TO ECOLOGY PURSUANT TO AGREEMENT SECTION 8.5.4. A S&M PLAN WILL BE SUBMITTED TO ECOLOGY AS LEAD REGULATORY AGENCY. LEAD REGULATORY AGENCY APPROVAL WILL BE SPECIFIC TO INFORMATION AFFECTING REGULATED UNITS AND HAZARDOUS SUBSTANCES IN THE FACILITY. THE S&M PLAN WILL DESCRIBE THOSE ACTIVITIES THAT WILL OCCUR DURING THE S&M PERIOD AND INCLUDE THE FOLLOWING: 1) SURVEILLANCE; (2) MAINTENANCE; (3) QUALITY ASSURANCE; (4) RADIOLOGICAL CONTROLS; (5) HAZARDOUS SUBSTANCE INVENTORY, MANAGEMENT AND PROTECTION; (6) HEALTH AND SAFETY/EMERGENCY PREPAREDNESS; (7) SAFEGUARDS AND SECURITY; AND (8) COST AND SCHEDULE.	06/30/2012
M-083-30	SUBMIT TO ECOLOGY A CLOSURE PLAN AS A PRIMARY DOCUMENT FOR THE 241-Z WASTE TREATMENT FACILITY (TSD UNIT) AND GLOVEBOX HA-20MB. A CLOSURE PLAN CERTIFIED IN ACCORDANCE WITH WAC 173-303-810(12) AND (13) FOR THE 241-Z AND GLOVEBOX HA-20MB TSD UNITS WILL BE SUBMITTED TO ECOLOGY TO BEGIN THE REVIEW PROCESS DESCRIBED BY FIGURE 9-2 IN SECTION 9 OF THE HFFACO FOR INCORPORATION INTO THE HANFORD FACILITY RCRA PERMIT. THE CLOSURE PLAN WILL DESCRIBE THE PLANS AND SCHEDULES NECESSARY TO COMPLY WITH WAC 173-303. THIS CLOSURE PLAN IS A PRIMARY DOCUMENT PURSUANT TO TABLE 9-1 OF THE HFFACO ACTION PLAN. THE 241-Z CLOSURE PLAN SHALL BE BASED UPON AND CONTAIN SCHEDULES AS NECESSARY TO FULFILL MILESTONE M-83-32.	07/31/2003

Table D. Major and Interim Milestones and Target Dates

Number	Milestone	Due Date
	ALSO SEE "DESCRIPTION/JUSTIFICATION" CONTAINED IN CHANGE FORM M-83-01-03.	
M-083-31	DISCONTINUE WASTE DISCHARGES FROM THE 241-Z TANKS TO TANK FARMS VIA EXISTING LINES. AFTER JUNE 30, 2005, NO WASTE LIQUID EFFLUENT DISCHARGES FROM 241-Z TANK SYSTEM TO TANK FARMS VIA THE EXISTING TRANSFER PIPING LINES WILL OCCUR. (TRANSFERS BY OTHER MEANS, SUCH AS A TANKER TRUCK, ARE ALLOWED. ALSO SEE "DESCRIPTION/JUSTIFICATION" CONTAINED IN CHANGE FORM M-83-01-03.	06/30/2005
M-083-32	COMPLETE CLOSURE OF THE PFP 241-Z TSD UNIT. COMPLETE THOSE ACTIVITIES REQUIRED BY THE 241-Z TREATMENT AND STORAGE UNIT'S RCRA CLOSURE PLAN. ALSO SEE "DESCRIPTION/JUSTIFICATION" CONTAINED IN CHANGE FORM M-83-01-03.	09/30/2011
M-083-40	COMPLETE TRANSITION AND DISMANTLEMENT OF THE 232-Z BLDG INCINERATOR. REMOVE THE 232-Z BUILDING PURSUANT TO THE FINAL ACTION MEMORANDA AND WORK PLANS. INCLUDED IN THIS MILESTONE IS THE PORTION OF THE 232-Z EXHAUST DUCT INSIDE THE 291-Z BUILDING, CONSISTENT WITH THE END POINT CRITERIA DEVELOPED IN M-83-20. DOE DEACTIVATION AND DECONTAMINATION ACTIVITIES MAY PROCEED IN ADVANCE OF CERCLA DECISION DOCUMENTS IN ACCORDANCE WITH SECTION 8 OF THE HFFACO.	09/30/2006
M-083-41	COMPLETE TRANSITION AND DISMANTLEMENT OF THE 216-Z-9 CRIB COMPLEX. REMOVE THE ABOVE-GRADE PORTION OF THE 216-Z-9A, B, & C BUILDINGS PURSUANT TO THE FINAL ACTION MEMORANDA AND WORK PLANS COVERING REMAINING ELEMENTS NOT COVERED BY RCRA CLOSURE PLAN. DOE DEACTIVATION AND DECONTAMINATION ACTIVITIES MAY PROCEED IN ADVANCE OF CERCLA DECISION DOCUMENTS IN ACCORDANCE WITH SECTION 8 OF THE HFFACO.	09/30/2010
M-083-42	COMPLETE TRANSITION AND DISMANTLEMENT OF THE 241-Z WASTE TREATMENT FACILITY. REMOVE THE ABOVE GRADE PORTION OF THE 241-Z, ZA, ZB, & ZG BUILDINGS PURSUANT TO THE FINAL ACTION MEMORANDUM AND WORK PLANS COVERING REMAINING ELEMENTS NOT COVERED BY RCRA CLOSURE PLANS. DOE DEACTIVATION AND DECONTAMINATION ACTIVITIES MAY PROCEED IN ADVANCE OF CERCLA DECISION DOCUMENTS IN ACCORDANCE WITH SECTION 8 OF THE HFFACO.	09/30/2011

Table D. Major and Interim Milestones and Target Dates

Number	Milestone	Due Date
M-083-43	COMPLETE TRANSITION OF THE 242-Z WASTE TREATMENT FACILITY AND 236-Z PLUTONIUM RECLAMATION FACILITY TO SUPPORT PFP DECOMMISSIONING. DEACTIVATE AND PREPARE FOR FUTURE DISMANTLEMENT THE ABOVE GRADE PORTIONS OF THE 242-Z AND 236-Z BUILDINGS.	09/30/2013
M-083-44	COMPLETE TRANSITION OF THE 234-5Z (PLUTONIUM CONVERSION FACILITY) & ZA (PLUTONIUM CONVERSION SUPPORT FACILITY), 243-Z LOW LEVEL WASTE TREATMENT FACILITY, 291-Z EXHAUST BUILDING, AND 291-Z-1 EXHAUST STACK TO SUPPORT PFP DECOMMISSIONING. DEACTIVATE AND PREPARE FOR DISMANTLEMENT THE ABOVE GRADE PORTIONS OF THE 234-5Z & ZA, 243-Z, AND 291-Z AND 291-Z-1 STACK BUILDINGS.	09/30/2015
M-089-00 LEAD AGENCY: ECOLOGY	COMPLETE CLOSURE OF NON-PERMITTED MIXED WASTE UNITS IN THE 324 BUILDING REC B-CELL, REC D-CELL, AND HIGH LEVEL VAULT.	10/31/2005
M-090-00	COMPLETE ACQUISITION OF NEW FACILITIES, MODIFICATION OF EXISTING FACILITIES, AND/OR MODIFICATION OF PLANNED FACILITIES AS NECESSARY FOR STORAGE OF HANFORD SITE IHLW AND ILAW, AND DISPOSAL OF ILAW. COMPLIANCE WITH THE WORK SCHEDULES SET FORTH IN THIS M-90 SERIES IS DEFINED AS THE PERFORMANCE OF SUFFICIENT WORK TO ASSURE WITH REASONABLE CERTAINTY THAT DOE WILL ACCOMPLISH SERIES M-90 MAJOR AND INTERIM MILESTONE REQUIREMENTS. DOE INTERNAL WORK SCHEDULES (E.G., DOE APPROVED SCHEDULE BASELINES) AND ASSOCIATED WORK DIRECTIVES AND AUTHORIZATIONS SHALL BE CONSISTENT WITH THE REQUIREMENTS OF THIS AGREEMENT. MODIFICATION OF DOE CONTRACTOR BASELINE(S) AND ISSUANCE OF ASSOCIATED DOE WORK DIRECTIVES AND/OR AUTHORIZATIONS THAT ARE NOT CONSISTENT WITH AGREEMENT REQUIREMENTS SHALL NOT BE FINALIZED PRIOR TO APPROVAL OF AN AGREEMENT CHANGE REQUEST SUBMITTED PURSUANT TO AGREEMENT ACTION PLAN SECTION 12.0.	To Be Established 6 MONTHS AFTER APPROVAL OF PROJECT MANAGEMENT PLAN
M-090-08	INITIATE ILAW DISPOSAL FACILITY CONSTRUCTION. INITIATION OF CONSTRUCTION OCCURS WHEN DOE OR ITS CONTRACTOR (AS AUTHORIZED) ISSUES AN APPROVAL TO START CONSTRUCTION AND THE CONTRACTOR COMMENCES EXCAVATION OF NON-CRITICAL SYSTEMS WITHIN THE RCRA DISPOSAL FACILITY.	02/28/2005
M-090-09-T01	COMPLETE DETAILED DESIGN OF ILAW DISPOSAL FACILITY CRITICAL SYSTEMS TO 80%. DETAILED DESIGN OF CRITICAL SYSTEMS INCLUDES THE A) LINER, B) LEACHATE COLLECTION SYSTEM AND C) LEAK DETECTION SYSTEM.	05/30/2003
M-090-10	INITIATE PLACEMENT OF ILAW WASTE CANISTERS IN ILAW DISPOSAL FACILITY.	08/31/2008

Table D. Major and Interim Milestones and Target Dates

Number	Milestone	Due Date
	(LOW ACTIVITY WASTE PACKAGES PLACED WITHIN THESE FACILITIES WILL BE RETRIEVABLE).	
M-090-11	COMPLETE CANISTER STORAGE FACILITY CONSTRUCTION. COMPLETION OF THIS MILESTONE REQUIRES THE COMPLETION OF ALL CONSTRUCTION, INTERNAL/EXTERNAL FACILITY(S) MODIFICATIONS AND STARTUP ACTIVITIES NECESSARY FOR CANISTER STORAGE FACILITY RECEIPT OF ALL PHASE I HANFORD SITE HIGH LEVEL WASTE CANISTERS FROM TANK WASTE REMEDIATION SYSTEM (TWRS) PROCESSING. FOR PURPOSES OF THIS INTERIM MILESTONE PHASE I IHLW CANISTER STORAGE IS DEFINED AS THE CAPABILITY FOR STORAGE OF AT LEAST 600 IHLW CANISTERS. INTERIM MILESTONES AND ASSOCIATED TARGET DATES ESTABLISHING WORK SCHEDULES FOR PHASE II IHLW CANISTER STORAGE WILL BE ESTABLISHED PURSUANT TO THE PHASE II REQUEST FOR PROPOSAL FOR TWRS PRIVATIZATION. FOR PERMITTING PURPOSES DETAILS DESIGN 0F CRITICAL SYSTEMS INCLUDES THE CANISTER STORAGE TUBE SYSTEM.	06/30/2009
M-091-00	COMPLETE THE ACQUISITION OF NEW FACILITIES, MODIFICATION OF EXISTING FACILITIES, AND/OR MODIFICATION OF PLANNED FACILITIES NECESSARY FOR STORAGE, TREATMENT/PROCESSING, AND DISPOSAL OF ALL HANFORD SITE TRU/TRUM, LLMW, AND GTC3. * NEGOTIATION OF SCHEDULES FOR FACILITY MODIFICATION WHICH MAY BE NECESSARY FOR THE MANAGEMENT OF PRE 1970 TRU/TRUM WILL BE ESTABLISHED FOLLOWING THE ISSUANCE OF OPERABLE UNIT RECORDS OF DECISION (RODS). NOTE: The M-91 milestone series and/or parts thereof have been in dispute resolution under Agreement Article VIII, Paragraph 30. An Ecology Director's Final Determination was issued March 10, 2003. On April 9, 2003, the DOE appealed the Director's Final Determination to state and federal courts for final resolution. The DOE will incorporate the final resolution into the appropriate plan and/or schedule pursuant to Article VIII, Paragraph 30, I of the Agreement.	To Be Determined*
M-091-01	COMPLETE THE ACQUISITION OF NEW FACILITIES, MODIFICATION OF EXISTING FACILITIES, AND/OR MODIFICATION OF PLANNED FACILITIES NECESSARY FOR STORAGE, AND TREATMENT/PROCESSING PRIOR TO DISPOSAL OF ALL HANFORD SITE POST 1970 TRU/TRUM. ** THE DATE FOR COMPLETION OF M-91-01 WILL BE DETERMINED AFTER REQUIRED TECHNOLOGY HAS BEEN DETERMINED THROUGH THE TRU/TRUM PMP, BUT WILL BE NO LATER THAN DECEMBER 2000. NOTE: The M-91 milestone series and/or parts thereof have been in dispute resolution under Agreement Article VIII, Paragraph 30. An Ecology Director's Final Determination was issued March 10, 2003. On April 9, 2003, the DOE appealed the Director's Final Determination to state and federal	To Be Established ** (BUT NO LATER THAN 12/31/2000

Table D. Major and Interim Milestones and Target Dates

Number	Milestone	Due Date
	courts for final resolution. The DOE will incorporate the final resolution into the appropriate plan and/or schedule pursuant to Article VIII, Paragraph 30, I of the Agreement.	
M-091-03	SUBMIT HANFORD SITE TRU/TRUM WASTE PROJECT MANAGEMENT PLAN (PMP) TO ECOLOGY PURSUANT TO AGREEMENT SECTION 11.5. THE HANFORD SITE TRU/TRUM WASTE PMP WILL INCLUDE ALL PLAN ELEMENTS REQUIRED BY AGREEMENT ACTION PLAN SECTION 11.5. APPROVAL OF THE TRU/TRUM PMP AND ACCOMPANYING AGREEMENT CHANGE REQUEST WILL ESTABLISH ALL MAJOR PROJECT TASKS AND DELIVERABLES FOR TREATMENT/STORAGE OF HANFORD SITE TRU/TRUM INCLUDING COMMERCIAL SECTOR MANAGEMENT, MODIFICATION OF EXISTING FACILITIES, AND CONSTRUCTION OF NEW FACILITIES. NOTE: The M-91 milestone series and/or parts thereof have been in dispute resolution under Agreement Article VIII, Paragraph 30. An Ecology Director's Final Determination was issued March 10, 2003. On April 9, 2003, the DOE appealed the Director's Final Determination to state and federal courts for final resolution. The DOE will incorporate the final resolution into the appropriate plan and/or schedule pursuant to Article VIII, Paragraph 30, I of the Agreement.	06/30/2000
M-091-05-T01	COMPLETE AND SUBMIT TRU/TRUM RETRIEVAL AND PROCESSING FACILITY ENGINGEERING STUDY/FUNCTIONAL DESIGN CRITERIA STUDY TO ECOLOGY. THE TRU/TRUM ENGINEERING/FUNCTIONAL DESIGN CRITERIA STUDY WILL COVER ACTIVITIES/FACILITIES NOT CONSIDERED COMMERCIALLY VIABLE AS DOCUMENTED IN THE APPROVED TRU/TRUM PMP AND ASSOCIATED AGREEMENT CHANGE REQUESTS. NOTE: The M-91 milestone series and/or parts thereof have been in dispute resolution under Agreement Article VIII, Paragraph 30. An Ecology Director's Final Determination was issued March 10, 2003. On April 9, 2003, the DOE appealed the Director's Final Determination to state and federal courts for final resolution. The DOE will incorporate the final resolution into the appropriate plan and/or schedule pursuant to Article VIII, Paragraph 30, I of the Agreement.	12/31/2002
M-091-06-T01	AWARD NECESSARY PRIVATIZED CONTRACTS FOR PROCESSING REMOTE HANDLED (RH) AND LARGE SIZE TRU/TRUM. NOTE: The M-91 milestone series and/or parts thereof have been in dispute resolution under Agreement Article VIII, Paragraph 30. An Ecology Director's Final Determination was issued March 10, 2003. On April 9, 2003, the DOE appealed the Director's Final Determination to state and federal courts for final resolution. The DOE will incorporate the final resolution into the appropriate plan and/or schedule pursuant to Article VIII, Paragraph 30, I of the Agreement.	09/30/2003

Table D. Major and Interim Milestones and Target Dates

Number	Milestone	Due Date
M-091-07	COMPLETE PROJECT W-113 FOR POST 1970 CH TRU/TRUM RETRIEVAL. NOTE: The M-91 milestone series and/or parts thereof have been in dispute resolution under Agreement Article VIII, Paragraph 30. An Ecology Director's Final Determination was issued March 10, 2003. On April 9, 2003, the DOE appealed the Director's Final Determination to state and federal courts for final resolution. The DOE will incorporate the final resolution into the appropriate plan and/or schedule pursuant to Article VIII, Paragraph 30, I of the Agreement.	09/30/2004
M-091-08-T01	COMPLETE CONSTRUCTION AND INITIATE HOT OPERATIONS OF RH AND LARGE SIZE TRU/TRUM PROCESSING FACILITY (A FINAL ACQUISITION SCHEDULE FOR THIS FACILITY WILL BE ESTABLISHED AS AN INTERIM MILESTONE NO LATER THAN DECEMBER 2000). NOTE: The M-91 milestone series and/or parts thereof have been in dispute resolution under Agreement Article VIII, Paragraph 30. An Ecology Director's Final Determination was issued March 10, 2003. On April 9, 2003, the DOE appealed the Director's Final Determination to state and federal courts for final resolution. The DOE will incorporate the final resolution into the appropriate plan and/or schedule pursuant to Article VIII, Paragraph 30, I of the Agreement.	06/30/2005
M-091-12	COMPLETE THERMAL TREATMENT AND DISPOSAL OF AN ADDITIONAL 360 CUBIC METERS OF CONTACT HANDLED LLMW. THIS BRINGS THE CUMULATIVE TOTAL TO AT LEAST 600 CUBIC METERS OF CONTACT HANDLED LLMW THERMALLY TREATED AND DISPOSED OF. NOTE: The M-91 milestone series and/or parts thereof have been in dispute resolution under Agreement Article VIII, Paragraph 30. An Ecology Director's Final Determination was issued March 10, 2003. On April 9, 2003, the DOE appealed the Director's Final Determination to state and federal courts for final resolution. The DOE will incorporate the final resolution into the appropriate plan and/or schedule pursuant to Article VIII, Paragraph 30, I of the Agreement.	12/31/2005
M-091-12A	COMPLETE THERMAL TREATMENT AND DISPOSAL OF AT LEAST 240 CUBIC METERS OF CONTACT HANDLED LLMW. NOTE: The M-91 milestone series and/or parts thereof have been in dispute resolution under Agreement Article VIII, Paragraph 30. An Ecology Director's Final Determination was issued March 10, 2003. On April 9, 2003, the DOE appealed the Director's Final Determination to state and federal courts for final resolution. The DOE will incorporate the final resolution into the appropriate plan and/or schedule pursuant to Article VIII, Paragraph 30, I of the Agreement.	12/31/2004
M-091-14-T01	AWARD COMMERCIALIZATION CONTRACT(S) FOR TREATMENT OF RH AND	10/31/2003

Table D. Major and Interim Milestones and Target Dates

Number	Milestone	Due Date
	LARGE SIZE LLMW PER APPROVED LLMW/GTC3 PMP AND ASSOCIATED AGREEMENT CHANGE REQUESTS. NOTE: The M-91 milestone series and/or parts thereof have been in dispute resolution under Agreement Article VIII, Paragraph 30. An Ecology Director's Final Determination was issued March 10, 2003. On April 9, 2003, the DOE appealed the Director's Final Determination to state and federal courts for final resolution. The DOE will incorporate the final resolution into the appropriate plan and/or schedule pursuant to Article VIII, Paragraph 30, I of the Agreement.	
M-091-15	COMPLETE ACQUISITION OF FACILITIES AND INITIATE TREATMENT OF RH AND LARGE CONTAINER (CH) LLMW. NOTE: The M-91 milestone series and/or parts thereof have been in dispute resolution under Agreement Article VIII, Paragraph 30. An Ecology Director's Final Determination was issued March 10, 2003. On April 9, 2003, the DOE appealed the Director's Final Determination to state and federal courts for final resolution. The DOE will incorporate the final resolution into the appropriate plan and/or schedule pursuant to Article VIII, Paragraph 30, I of the Agreement.	06/30/2008
M-091-20	T PLANT IS READY TO RECEIVE THE FIRST CANISTER OF K BASINS FLOOR AND PIT SLUDGE. THIS INTERIM MILESTONE WILL BE COMPLETE WHEN ALL T PLANT READINESS ACTIVITIES HAVE BEEN COMPLETED TO ACCEPT PIT AND FLOOR SLUDGE. READINESS IS DEFINED AS THE ISSUANCE OF THE READINESS TO PROCEED LETTER BY THE APPROVAL AUTHORITY. NOTE: The M-91 milestone series and/or parts thereof have been in dispute resolution under Agreement Article VIII, Paragraph 30. An Ecology Director's Final Determination was issued March 10, 2003. On April 9, 2003, the DOE appealed the Director's Final Determination to state and federal courts for final resolution. The DOE will incorporate the final resolution into the appropriate plan and/or schedule pursuant to Article VIII, Paragraph 30, I of the Agreement.	12/31/2002
M-091-21-T01	COMPLETE PHYSICAL ACTIVITIES AT T PLANT NECESSARY TO STORE CANISTER AND FUEL WASH SLUDGE. THIS TARGET IS COMPLETE UPON THE DECLARATION OF COMPLETION OF MODIFICATIONS REQUIRED TO STORE CANISTER AND FUEL WASH SLUDGE IN T PLANT. NOTE: The M-91 milestone series and/or parts thereof have been in dispute resolution under Agreement Article VIII, Paragraph 30. An Ecology Director's Final Determination was issued March 10, 2003. On April 9, 2003, the DOE appealed the Director's Final Determination to state and federal	11/29/2003

Table D. Major and Interim Milestones and Target Dates

Number	Milestone	Due Date
	courts for final resolution. The DOE will incorporate the final resolution into the appropriate plan and/or schedule pursuant to Article VIII, Paragraph 30, I of the Agreement.	
M-091-22	T PLANT IS READY TO RECEIVE CANISTER AND FUEL WASH SLUDGE FROM K BASINS. THIS INTERIM MILESTONE WILL BE COMPLETE WHEN ALL T PLANT READINESS ACTIVITIES HAVE BEEN COMPLETED TO ACCEPT CANISTER AND FUEL WASH SLUDGE. READINESS IS DEFINED AS THE ISSUANCE OF THE READINESS TO PROCEED LETTER BY THE APPROVAL AUTHORITY. NOTE: The M-91 milestone series and/or parts thereof have been in dispute resolution under Agreement Article VIII, Paragraph 30. An Ecology Director's Final Determination was issued March 10, 2003. On April 9, 2003, the DOE appealed the Director's Final Determination to state and federal courts for final resolution. The DOE will incorporate the final resolution into the appropriate plan and/or schedule pursuant to Article VIII, Paragraph 30, I of the Agreement.	02/29/2004
M-092-00	COMPLETE ACQUISITION OF NEW FACILITIES, MODIFICATION OF EXISTING FACILITIES, AND/OR MODIFICATION OF PLANNED FACILITIES NECESSARY FOR THE STORAGE, TREATMENT/PROCESSING, AND DISPOSAL OF HANFORD SITE CESIUM AND STRONTIUM CAPSULES (Cs/Sr), BULK SODIUM (Na), AND 300 AREA SPECIAL WASTE (SCW).	To Be Established BY OCTOBER 1998
M-092-01	COMPLETE COMMERCIAL DISPOSITION AND/OR ACQUISITION OF NEW FACILITIES, MODIFICATION OF EXISTING FACILITIES, AND/OR MODIFICATION OF PLANNED FACILITIES NECESSARY FOR SITEWIDE CONSOLIDATION, AND STORAGE PRIOR TO COMMERCIAL USE, OR TREATMENT AND/OR REPACKAGING BY DOE TWRS. COMPLETION OF THIS MILESTONE REQUIRES THE COMPLETION OF COMMERCIAL DISPOSITION AND/OR ALL CONSTRUCTION, INTERNAL/EXTERNAL FACILITY(S) MODIFICATIONS, AND STARTUP ACTIVITIES NECESSARY FOR THE TREATMENT/PROCESSING, REPACKAGING (IF NECESSARY), AND STORAGE OF Cs/Sr (TO INCLUDE UNENCAPSULATED SALTS) LOCATED AT THE: (1) "ARECO" FACILITY IN LYNCHBERG VA (25 CAPSULES), (2) HANFORD 300 AREA (13 CAPSULES AT THE 327 POOL FACILITY AND EXCESS CS/SR SALTS AT THE 324 FACILITY), AND (3) HANFORD WASTE ENCAPSULATION AND STORAGE FACILITY (WESF) IN THE 200 EAST AREA.	12/31/2009
M-092-05	INCLUSION OF HANFORD SITE Cs/Sr "TREATMENT AND/OR REPACKAGING PARAMETERS" IN DOE TWRS PHASE II REQUEST FOR PROPOSALS (TREATMENT AND/OR REPACKAGING OF ALL REMAINING Cs/Sr). DOE WILL ASSESS THE VIABILITY OF DIRECTLY DISPOSING OF HANFORD CS/SR CAPSULES AT THE NATIONAL HIGH-LEVEL WASTE REPOSITORY BASED ON THIS ASSESSMENT, IF DOE CONCLUDES THAT DIRECT DISPOSAL IS A VIABLE AND PREFERRED ALTERNATIVE TO VITRIFICATION, DOE WILL SUBMIT TO ECOLOGY SPECIFIC DOCUMENTATION JUSTIFYING ITS CONCLUSION, WITH A PROPOSED	06/30/2007

Table D. Major and Interim Milestones and Target Dates

Number	Milestone	Due Date
	MILESTONE CHANGE REQUEST ESTABLISHING ENFORCEABLE AGREEMENT MILESTONES FOR DISPOSITIONING HANFORD CS/SR CAPSULES BY 2028.	
MX-092-06-T02	COMPLETE THE DISPOSAL/OR DISPOSITION OF APPROXIMATELY 135 METRIC TONS OF UNIRRADIATED CONTAMINATED FUEL LOCATED IN THE 300 AREA AND 5 METRIC TONS OF MISCELLANEOUS URANIUM SOURCE MATERIALS LOCATED IN ALL 300 AND 200 AREA FUEL SUPPLY SHUTDOWN FACILITIES, AND COMPLETE DISPOSAL/DISPOSITION OF APPROXIMATELY 825 METRIC TONS OF UN-IRRADIATED FUEL SOURCE MATERIALS LOCATED IN THE 300 AREA FUEL SUPPLY SHUTDOWN FACILITIES.	09/30/2006
M-092-09	COMPLETE ACQUISITION OF NEW FACILITIES, MODIFICATION OF EXISTING FACILITIES, AND/OR MODIFICATION OF PLANNED FACILITIES NECESSARY FOR STORAGE, TREATMENT/PROCESSING, AND DISPOSAL OF HANFORD SITE SODIUM.	In Abeyance
M-092-10	SUBMIT HANFORD SITE SODIUM PROJECT MANAGEMENT PLAN (PMP) TO ECOLOGY PURSUANT TO AGREEMENT ACTION PLAN SECTION 11.5. THE HANFORD SITE SODIUM PMP WILL INCLUDE ALL PLAN ELEMENTS REQUIRED BY AGREEMENT ACTION PLAN SECTION 11.5. SHOULD DOE DETERMINE (PURSUANT TO THE HANFORD SITE SODIUM PMP AND AGREEMENT INTERIM MILESTONE M-50-03) THAT TWRS USE OF HANFORD SITE RADIOACTIVE SODIUM (FFTF, HALLAM & SODIUM REACTION EXPERIMENT) IS WARRANTED, IT SHALL SPECIFY IN ITS TWRS, HIGH LEVEL WASTE VITRIFICATION PLANT REQUEST FOR PROPOSAL(S) THAT USE OF HANFORD SITE RADIOACTIVE SODIUM IS A REQUIREMENT. SHOULD THE HANFORD SITE PMP AND FINDINGS PURSUANT TO AGREEMENT INTERIM MILESTONE M-50-03 DETERMINE THAT TWRS USE OF HANFORD SITE RADIOACTIVE SODIUM IS NOT WARRANTED DOE SHALL ISSUE ACCOMPANYING PROPOSED AGREEMENT CHANGE REQUESTS FOR ALTERNATIVE HANFORD SITE RADIOACTIVE SODIUM DISPOSITION (E.G., NECESSARY MILESTONES AND TARGET DATES ASSOCIATED WITH THE CONSTRUCTION OF THE SODIUM REACTION FACILITY).	In Abeyance
MX-092-11-T01	COMPLETE DISPOSITION OPTIONS FOR ALL HANFORD NON-RADIOACTIVE SODIUM.	09/30/2004
M-092-12	COMPLETE ACQUISITION OF NEW FACILITIES, MODIFICATION OF EXISTING FACILITIES, AND/OR MODIFICATION OF PLANNED FACILITIES NECESSARY FOR CONSOLIDATED STORAGE PRIOR TO DISPOSAL OF HANFORD SITE 300 AREA SPECIAL CASE WASTE (SCW).	09/30/2006
M-092-16	COMPLETE REMOVAL AND TRANSFER, AND INITIATE STORAGE OF PHASE III 300 AREA SCW WASTE AND MATERIALS. PHASE III INVENTORY WILL CONSIST OF ANY REMAINING 300 AREA SCW WASTES AND MATERIALS.	09/30/2006
M-093-00 LEAD AGENCY: DUAL	COMPLETE FINAL DISPOSITION OF ALL 100 AREA SURPLUS PRODUCTION REACTOR BUILDINGS. 100 AREA SURPLUS PRODUCTION REACTOR BUILDINGS CONSIST OF THE FOLLOWING: 105-D, 105-DR, 105-H, AND 105/109-N (ECOLOGY LEAD), AND 105-B, 105-C, 105-F, 105-KE, AND 105-KW (EPA LEAD).	To Be Determined

Table D. Major and Interim Milestones and Target Dates

Number	Milestone	Due Date
M-093-11	COMPLETE 105-F INTERIM SAFE STORAGE. THIS MILESTONE INCLUDES THE COMPLETION OF ALL ACTIVITIES NECESSARY TO PLACE THE 105-F REACTOR FACILITY IN A SAFE STORAGE MODE IN PREPARATION FOR FINAL DISPOSITION (CONSISTENT WITH AN APPROVED S&M PLAN AND PROJECT DESIGN REPORT). THE ISS OF F REACTOR INCLUDES THE DISMANTLEMENT OF ALL 105-F FACILITY STRUCTURES OUTSIDE THE REACTOR PRIMARY SHIELD WALL. THESE ACTIVITIES INCLUDE HAZARD STABILIZATION, ASBESTOS ABATEMENT, FACILITY DECONTAMINATION, PIPE-CUTTING, FUEL BASIN CLEAN OUT, AND STRUCTURE REMOVAL TO THE PRIMARY SHIELD WALL.	09/30/2004
M-093-17	COMPLETE THE INTERIM SAFE STORAGE FOR THE 105-D REACTOR.	12/31/2004
M-093-18	COMPLETE THE INTERIM SAFE STORAGE FOR THE 105-H REACTOR.	12/31/2005
M-093-19	SUBMIT TO EPA AND ECOLOGY THE 105/109-N REACTOR INTERIM SAFE STORAGE DESIGN REPORT.	09/30/2009
M-093-20	COMPLETE 105-N REACTOR INTERIM SAFE STORAGE.	09/30/2012
M-093-22	COMPLETE 105-KE AND 105-KW REACTOR INTERIM SAFE STORAGE.	09/30/2011
M-093-23	SUBMIT ENGINEERING EVALUATION/COST ANALYSIS (EE/CA) FOR KE/KW REACTOR ISS.	07/31/2006
M-093-24	SUBMIT EE/CA FOR N REACTOR ISS.	09/30/2006
M-093-25	SUBMIT AN ENGINEERING EVALUATION OF THE FINAL SURPLUS REACTOR DISPOSITION TO EPA AND ECOLOGY.	09/30/2005
M-094-00	COMPLETE DISPOSITION OF 300 AREA SURPLUS FACILITIES. COMPLETION OF FACILITY DISPOSITION IS DEFINED AS THE COMPLETION OF DEACTIVATION, DECONTAMINATION, AND DECOMMISSIONING, AND OBTAIN EPA AND/OR ECOLOGY APPROVAL OF THE APPROPRIATE PROJECT CLOSEOUT DOCUMENTS. SURPLUS FACILITIES ARE DEFINED AS ANY FACILITY OR SITE (INCLUDING EQUIPMENT) THAT HAS NO IDENTIFIED PROGRAMMATIC USE BY THE OPERATING PHASE PROGRAM SECRETARIAL OFFICER. THE CLEANUP OF 300-FF-2 WASTE SITES ASSOCIATED WITH 300 AREA SURPLUS FACILITIES WILL BE PERFORMED IN ACCORDANCE WITH TRI-PARTY AGREEMENT MAJOR MILESTONE M-016-00B.	09/30/2018
M-094-01	SUBMIT A SCHEDULE AND TPA MILESTONES TO COMPLETE DISPOSITION OF THE FOLLOWING SURPLUS FACILITIES: 303M, 332, 333, 334, 334A, 3221, 3222, 3223, 3224, 3225, 324, 324B, 327 (SEE TPA CHANGE REQUEST M-94-01-01, TABLE 1). THE MILESTONE DELIVERABLE SHALL INCLUDE AT LEAST: 1) A SCHEDULE FOR SUBMITTALS OF ENGINEERING EVALUATION/COST ANALYSES (EE/CA), REMOVAL ACTION MEMORANDA, REMOVAL ACTION WORK PLANS, AND OTHER REQUIRED DOCUMENTS FOR EPA AND/OR ECOLOGY APPROVAL; 2) A SCHEDULE THAT DEFINES INITIATION AND	11/30/2003

Table D. Major and Interim Milestones and Target Dates

Number	Milestone	Due Date
	COMPLETION DATES FOR THE DISPOSITION OF THE FOLLOWING SURPLUS FACILITIES: 303M, 332, 333, 334, 334A, 3221, 3222, 3223, 3224, 3225, 324, 324B, 327; 3) A TRI-PARTY AGREEMENT CHANGE PACKAGE THAT INCLUDES MILESTONES FOR GROUPS OF SURPLUS FACILITIES AND ASSOCIATED WASTE SITES THAT WILL ENSURE COMPLETION OF M-094-00; AND, 4) AN EVALUATION OF OUTYEAR TRI-PARTY AGREEMENT MILESTONES FOR THE 300 AREA TO SEE IF THEY CAN BE ACCELERATED. IT IS EXPECTED THAT SCHEDULES WILL BE ALIGNED WITH THE ASSOCIATED SCHEDULES REQUIRED BY M-016-63. EE/CA'S AND ACTION MEMORANDA FOR THE FOLLOWING FACILITIES: 303M, 332, 333, 334, 334A, 3221, 3222, 3223, 3224 AND 3225, MUST BE COMPLETED AND ASSOCIATED CLEANUP COMMENCED PRIOR TO SUBMITTING ANY DOCUMENTS REQUIRING EPA AND/OR ECOLOGY APPROVAL FOR OTHER 300 AREA FACILITY DISPOSITION WORK. THIS WILL ALLOW THE OPPORTUNITY TO FACTOR "LESSONS LEARNED FROM REMEDY IMPLEMENTATION" INTO THE REMAINING DOCUMENTS.	
M-094-03	COMPLETE DISPOSITION OF THE FOLLOWING SURPLUS FACILITIES: 303M, 332, 333, 334, 334A, 3221, 3222, 3223, 3224, 3225, 324, 324B, 327 (SEE TPA CHANGE REQUEST M-94-01-01, TABLE 1).	09/30/2010
M-094-04	SUBMIT A SCHEDULE AND TRI-PARTY AGREEMENT MILESTONES TO COMPLETE DISPOSITION OF THE SURPLUS FACILITIES IN THE 300 AREA AND IDENTIFY THE 300 AREA FACILITIES AND ASSOCIATED WASTE SITES THAT WILL REMAIN PAST THE M-094-00 COMPLETION DATE (9/30/2018). THE MILESTONE DELIVERABLE SHALL INCLUDE AT LEAST: 1) A SCHEDULE FOR SUBMITTALS OF ENGINEERING EVALUATION/COST ANALYSES (EE/CA), REMOVAL ACTION MEMORANDA, REMOVAL ACTION WORK PLANS, CLOSURE/POST CLOSURE PLANS (IN COORDINATION WITH THE 300 AREA WATS AND 340 BUILDING ASSOCIATED WORK PLANS SUBMITTALS AS APPROPRIATE), AND OTHER DOCUMENTS THAT REQUIRE EPA AND/OR ECOLOGY APPROVAL; 2) A SCHEDULE THAT DEFINES INITIATION AND COMPLETION DATES FOR THE DISPOSITION OF THE SURPLUS FACILITIES; 3) A TRI-PARTY AGREEMENT CHANGE PACKAGE THAT INCLUDES MILESTONES FOR GROUPS OF SURPLUS FACILITIES AND ASSOCIATED WASTE SITES THAT WILL ENSURE COMPLETION OF M-094-00; AND, 4) A CLEARLY DEFINED MISSION AND TRI-PARTY AGREEMENT DISPOSITION PATH FOR ANY REMAINING FACILITIES IN THE 300 AREA. IT IS EXPECTED THAT SCHEDULES WILL BE ALIGNED WITH THE ASSOCIATED SCHEDULES REQUIRED BY M-016-65.	08/30/2005

APPENDIX E
KEY INDIVIDUALS

	U.S. Environmental Protection Agency Region 10	Washington State Department of Ecology	U.S. Department of Energy, Richland Operations
Executive Managers	Program Manager for the Hanford Project Office (509) 376-9529	Program Manager for the Nuclear Waste Program (360) 407-7150	Assistant Manager for Planning and Integration (509) 376-6657 Assistant Manager for the Office of River Protection, Waste Treatment and Immobilization Plant (509) 372-3864 Assistant Manager for the Office of River Protection, Tank Farms (509) 376-0933
	Environmental Protection Agency Region 10 712 Swift Blvd., Suite 5 Richland, WA 99352	Washington Department of Ecology Nuclear Waste Program P.O. Box 47600 Olympia, WA 98504-7600	U.S. Department of Energy Richland Operations Office P.O. Box 550 Richland, WA 99352
Community Relations Contacts	Public Involvement Representative (509) 376-8631	Public Involvement Supervisor (509) 736-3036 / (509) 736-3001	Public Involvement Program Manager (509) 376-6216
	Environmental Protection Agency Region 10 712 Swift Blvd., Suite 5 Richland, WA 99352	Washington Department of Ecology Nuclear Waste Program 1315 W. 4th Avenue Kennewick, WA 99336-6018	U.S. Department of Energy Richland Operations Office P.O. Box 550 Richland, WA 99352

Additionally for the latest information concerning the Hanford cleanup you can call toll free:

1 - 800 - 321 – 2008

APPENDIX F

Supporting Technical Plans and Procedures

Document	Status
Strategy for Handling and Disposing of Purgewater at the Hanford Site, Washington	WHC-MR-0039 Approved by DOE, EPA Ecology on August 21, 1990
Data Quality Strategy for Hanford Site Characterization	"Proposed Data Quality Strategy for Hanford Site Characterization, " WHC-SD-EN-AP-023, issued Jan. 19, 1991
Environmental Investigation and Site Characterization Manual (contains specific procedures governing Site investigation activities)	CM-7-7 Issued, September 1988
Data Reporting Requirements for the Hanford Site	To be developed
Guidance on Preparation of Laboratory Quality Assurance Plans	Draft issued
Data Validation Guidelines for Contract Laboratory Program Organic Analyses	WHC-CM-5-3 issued August 31, 1990
Data Validation Guidelines for Contract Laboratory Program Inorganic Analyses	WHC-CM-5-3 issued August 31, 1990

APPENDIX G - DATA MANAGEMENT INITIATIVES

September 20, 1993

LOCATIONAL DATA COLLECTION STANDARDS

Purpose:

Establish standards to be followed by all organizations collecting locational information at the Hanford Site. This will ensure that during the collection of locational information that standards and guidelines will be followed to assure accuracy and usability of the information.

A set of minimum standards for information needs associated with all X, Y, and Z coordinate data (surveyed or GPS) will be defined. Some examples of the ancillary information to be carried include: accuracy; coordinate type; type of collection method used; data collector; and the intended use and application.

DATABASE DOCUMENTATION AND LISTING OF EXISTING SYSTEMS UPDATE

Purpose:

Undertake a full inventory of existing data management systems, their location, information contained in them, and the source of their information. With the existing and growing databases on the Hanford Site, an effort to understand what computer/automated systems exist on site needs to occur. This task should be assigned to all contractors. Their respective management should assign and require this task to be fulfilled internally.

DATA REFERENCE SEARCH INFORMATION SYSTEM

Purpose:

Create a system to provide information regarding site characterization historic documents, records, and photography that directly relate to TPA activities.

All resulting information gathered needs to be indexed, referenced, and automated. This will reduce redundant data collection of historic documents on closely associated operable units, and thus save valuable research time and costs.

EII PROCEDURES UPDATE

Purpose:

Disseminate the data and locational standards and guideline to the users in the field. Coordinate EII instructions and data collection to ensure EII's are reviewed and updated to incorporate data management changes, standards, and guidelines for managing information.

DIGITAL GIS BASE MAP DATA COLLECTION

Purpose:

Provide the necessary base map information to carry out compliance and cleanup activities at the Hanford Site. This milestone will ensure TPA participants an accurate, dependable and controlled set of base map data.

SITEWIDE ORTHOPHOTOGRAPHY PROGRAM

Purpose:

Establish a comprehensive, usable and long-term site-wide historical record of the Hanford Site. The orthophotography will provide the site with a single up-to-date source for all geographic baseline information from which to obtain automated spatial information.

MONUMENT CONTROL NETWORK SYSTEM

Purpose:

With the transition from the Hanford Plant Coordinates from the WA State Plane Coordinate system, one, up-to-date official survey monument system needs to be adopted by all contractors and used in all engineering and GPS survey work conducted on site. This will enable a more uniform collection standard, and have assurance that all information collected meets that standard.

ENGINEERING SURVEY DATA COLLECTION STANDARDS

Purpose:

Develop procedures and guidelines for engineering survey data collection, recording, and storage. At present, engineering surveys are conducted on site without regard to the importance or cost associated with the collection or generation of locational information.

STANDARD WELL ID/NAMING AND LOCATION COORDINATES

Purpose:

Adopt a unique site-wide naming standard for well designations at the Hanford Site. These standards will be maintained and available in an on-line computer system. This system would also function as a cross reference table between existing standards and previous standards, and would also store the official X, Y, and Z coordinate location to be used by all other computer systems.

HISTORIC DATA MANAGEMENT

Purpose:

Establish a Site historical data management system. As TPA activities develop, a system describing how the site looked, where buildings were located before D&D activities, and where historic waste sites existed will need to be developed.

At present, when buildings are removed from an area, the buildings are also removed from the engineering drawing without regard to its historical or environmental significance. In some cases these same buildings and their footprints are later classified as waste sites. Numerous types of historic information need to be saved, inventoried and tracked:

Photography
CAD Infrastructure Drawings
Written Documents
Borehole Logs

SINGLE SHELL TANK WASTE RETRIEVAL CRITERIA PROCEDURE[1]

INTRODUCTION

The purpose of this procedure is to establish a means to set, evaluate, and revise criteria for determining the allowable residual waste following waste retrieval operations on the Hanford single shell tanks (SST).

The format for this procedure is to progress through a series of steps as depicted in the generic logic diagram displayed as Figure 1. Each step is briefly outlined and includes elements that constitute completion of the step.

DEFINITION OF TERMS SPECIFIC TO WASTE RETRIEVAL ACTIVITIES:

Residual Waste: Tank waste remaining in the tank after all waste retrieval actions have been completed. Some materials may be excluded from residual waste volume calculations, subject to approval in the closure plan.

Step 1 : Establish Goal

This initial step establishes the goal (the standard) for waste retrieval percentage and the method to be used to calculate the allowable residual waste volume following completion of retrieval operations. The calculation method is dependent on the variable to be measured (total tank waste inventory), and closure criteria and strategy. The proposed residual waste volume calculation method is shown in Attachment 1. A retrieval goal has been established as defined in milestone M-45-00.

Step 2 : Evaluate Major Assessment Areas

Once the goal has been established, it is assessed against two major areas, which are:

a) SST Demonstration: Demonstrate achievability of waste retrieval goal during tank 241-S-112 and 241-C-104 tank retrieval demonstrations. These will demonstrate retrieval of both saltcake and sludge/hard heel wastes as well as tanks in both 200 East and 200 West areas. Experience gained during AX-104, C-106 and earlier past practice sluicing shall be the reference baseline for past practice sluicing. The effectiveness of the retrieval operation will be determined with a topographical measurement of remaining waste in the tank, and a calculation of waste inventory.

[1] This procedure was originally appended to Change Request M-45-93-01.

The inventory calculation will be based on calculated volume of the tank, waste topography measurements with appropriate surveying techniques, and include adjustments for any detectable deformities in the tank structure (i.e., liner bulges). This technique will be demonstrated and calibrated in this retrieval demonstration. Prepare input to the retrieval goal evaluation (step 3) to accommodate the retrieval operations and residual measurement demonstrations.

b) Evaluate regulatory requirements of high-level waste (HLW) disposal from applicable rules, regulations and DOE Orders. Establish an interface with the Nuclear Regulatory Commission (NRC), and reach formal agreement on the retrieval and closure actions for single shell tanks with respect to allowable waste residuals in the tank and soil column. Prepare input to the retrieval goal evaluation (step 3) to accommodate the agreements on allowable residuals.

Step 3 : Tank Retrieval Demonstration Goal Compliance

Perform a joint assessment by DOE and Ecology of the retrieval goal, based on the inputs from Steps 1 and 2. Modify the retrieval goal to match the most restrictive case (i.e., the highest retrieval % requirement).

Step 4 : Tank Farm Retrieval Demonstration(s)

Perform the Tank Farm Retrieval Demonstration(s) on the selected tank farm or initial set of single-shell tanks to be retrieved. Repeat the residual inventory measurement steps identified in the tank retrieval demonstration. Calculate the residual inventory for each tank, based on the formula and procedure in Attachment 1 to this Appendix.

Step 5 : Tank Farm Retrieval Demonstration Goal Compliance

Perform a joint assessment by DOE and Ecology of the retrieval goal, based on the tank farm retrieval demonstration results. Modify the goal to match best available technology. Notify NRC as required for compliance with Nuclear Waste Policy Act. Establish formal criteria for retrieval of waste from the remaining SST's. Finalize closure plans for tank farms and obtain concurrence from regulatory agencies.

Step 6 : SST Retrieval

Proceed with retrieval of waste from the remaining SSTs. The schedule reflects retrieval activities on a tank-by-tank basis. It also allows flexibility to retrieve tanks from various farms if desired to support safety issue

resolution, pretreatment or disposal feed requirements, or other priorities. Completion of retrieval will be in accordance with approved closure plans.

Step 7 : Determine Residual Waste Percentage

The waste residuals are calculated for each tank.

Step 8 : Retrieval Compliance Evaluation

Compare residual waste in each tank with criteria. Document compliance with criteria via notification to appropriate regulatory agencies. If residual complies with criteria, proceed with final closure operations (step 14). If residuals do not comply with criteria, prepare a request for waiver to the appropriate regulatory agency (step 9).

Step 9 : Petition for Regulatory Waiver

An assessment is made as to the applicability of petitioning for regulatory waiver. This requires the review of relevant NRC license issues and possible closure plan modifications. Submit waivers to appropriate regulatory agencies.

Step 10 : Waiver Acceptance

If a waiver is accepted, closure operations for the tank farm is initiated (Step 14). If the waiver is not accepted, additional retrieval operations are required. New technology may be needed (step 11). The waiver evaluation will consider the points on Attachment 2.

Step 11 : Additional Technology Available

A review of alternate technologies will be performed relative to additional waste removal. If additional technologies are available, they will be deployed (step 12) and waste retrieval will resume. If additional technologies are not available, new technologies must be developed and deployed (steps 13 and 14). The tank farm will be held in interim status pending completion of the additional retrieval operations.

Step 12 : Deploy Technology and Perform Additional Retrieval

If additional retrieval technology is available, it is deployed and additional waste retrieval operations are performed. After retrieval operation, the waste residual is again determined (Step 7), followed by the tank goal compliance evaluation (Step 8).

Step 13 : Develop New Technology

If additional retrieval technology is not available, new technology is to be developed for the residue waste followed by deployment of the technology and additional waste retrieval operations (Step 12). After retrieval operation, the waste residual is again determined (Step 7), followed by the tank goal compliance evaluation (Step 8).

Step 14 : Closure Action

When the tank farm retrieval and waste residual assessment process is complete the closure operations will start. Completion of the retrieval operations will be documented in accordance with the closure plans.

Attachment 1

WASTE RESIDUAL CALCULATION PROCEDURE, STEP 1

Calculate Residual Waste Volume

1. Calculate Tank Volume
2. Measure/Calculate Waste Inventory via Topographical Mapping and Survey Techniques.
3. Retrieve Waste
4. Repeat Step 2.

Calculation Method:

For 75' Diameter Tanks (x), i.e., 100 Series Tanks

xbar gal = (100-A)% (Total Volume of Waste/133 Tanks) in full diameter tanks = Allowable Average Residual per Tank

= (1.00-.99)(4,788,000 cu ft)/133 = 360 cu ft.

where A% * = Goal or criteria for waste retrieval percentage.

For Small Diameter Tank (y), e.g., 200 Series Tanks

ybar gal = (100-A)% (Total Volume of Waste/16 Tanks) in small diameter tanks = Allowable Average Residual per Tank

= (1.00-.99)(48,000 cu ft/16) = 30 cu ft

where A% * = Goal or criteria for waste retrieval percentage.

* Goal is 99% waste retrieval as defined in M-45-00 in equivalent volumetric measures.

Attachment 2

EXCEPTION TO RETRIEVAL CRITERIA FOR SINGLE-SHELL TANKS

The DOE shall retrieve tank waste in accordance with criteria defined in milestone M-45-00. This recovery criteria will be applied to each tank on a tank-by-tank basis. If the DOE does not believe that this criteria is achievable for a specific tank, DOE shall submit a request for an exception to EPA and Ecology. The request shall include, at minimum, the following information:

1. The reason DOE does not believe the retrieval criteria can be met.

2. The schedule, using existing technology, to complete retrieval to the criteria - if possible.

3. The potential for future retrieval technology developments that could achieve the criteria, including estimated schedules and costs for development and deployment.

4. The volume of waste proposed to be left in place, and it's chemical and radiological characteristics.

5. Expected impacts to human health and the environment if the residual waste is left in place.

6. Additional information as required by EPA and/or Ecology.

The above information shall be submitted within 120 days of the decision by DOE that continued retrieval actions will not result in further waste removal. Upon receipt, EPA and Ecology shall provide a response within 60 days, in which they will either approve the exception to the criteria, in which case retrieval will be considered complete for the tanks in question, or they will deny the request. If the request is denied the DOE must continue to attempt to retrieve the tank wastes until the criteria is met for the tank, or they may choose to enter into the RCRA dispute resolution procedures of the Agreement. If an exception to the criteria is approved, the closure plan for the SSTs must be modified to address the remaining residual waste.

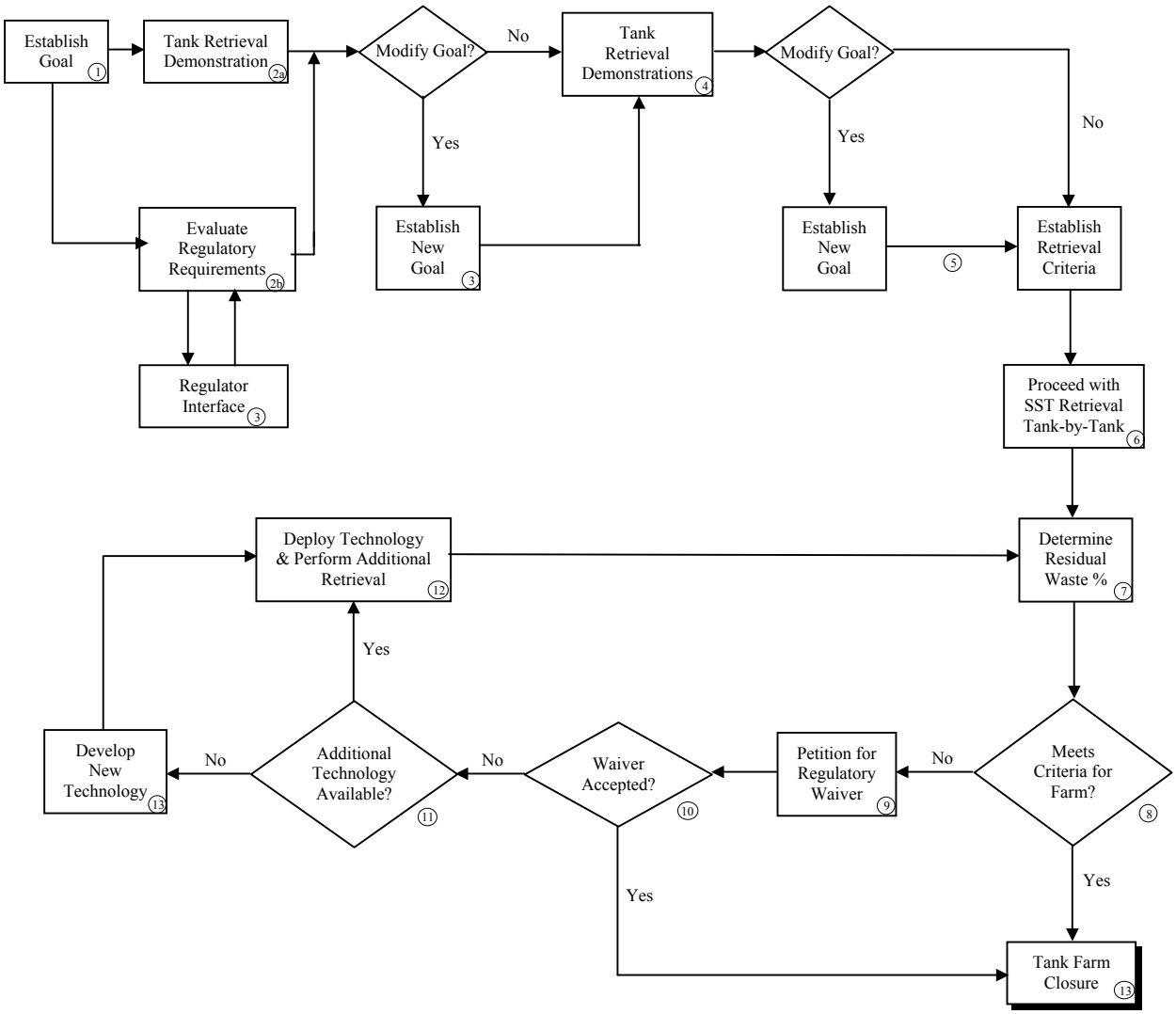



Figure H-1. Process for Assessing Percentage of Waste Retrieved from Waste Retrieval Operations